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Ang Lee and Ben Gervais on High Frame Rate in Features and Documentaries

Ang Lee is the director of 14 feature films, including *Eat Drink Man Woman* (1994), *Sense and Sensibility* (1995), *Crouching Tiger, Hidden Dragon* (2000), *Brokeback Mountain* (2005), and *Life of Pi* (2012), the last two of which earned him Academy Awards for Best Director. All told, his films have been nominated for 68 Oscars and won 12.

Lee's two latest films, *Billy Lynn's Long Halftime Walk* (2016) and *Gemini Man* (2019), were shot in 4K 3D at 120 fps, the only feature films shot in that format to date. *Billy Lynn* was presented in that format in only five theaters in the world for two weeks.

Gemini Man had a wider release in theaters capable of high frame rate (HFR) although the only ones capable of showing it at full 4K 3D at 120 fps (what Lee calls "the whole shebang") were about 30 screens in China, using new technology developed specifically for Lee by **Christie Digital** and **Huaxia Film Distribution**. In North America, the film was screened 2K 3D at 120 fps in 14 Dolby Cinema thea-

ters, and in hundreds more at 60 fps, including a limited number of IMAX with Laser locations. (See "Giant Screens and High Frame Rates, Oct.-Nov. 2019.)

Ben Gervais is a digital imaging technician who has worked on 18 features, including **Martin Scorsese's** *Hugo* (2011), where he was 3D camera systems engineer, *Pacific Rim* (2013), *X-Men: Days of Future Past* (2014), and *Spotlight* (2015). He served as technical supervisor on Lee's *Billy Lynn* and *Gemini Man*.

Gervais and **Demetri Portelli**, who was stereographer on those two films, will speak about HFR and present a demonstration of Lee's "whole shebang" in the Giant Screen Innovations Session of the **Giant Screen Cinema Association's** Film Expo, March 10. The session is entitled "Completing the Transition From Film to Digital with HFR and HDR." (For more information, visit giantscreencinema.com.)

LF Examiner conducted separate telephone interviews with Lee and Gervais to learn more about their experiences with 3D and HFR, developing the "whole shebang," and the possible applications of the technologies to giant-screen documentaries. (We have edited, interlaced, and re-ordered the interviews to create the following virtual conversation.)

LFX: What was the first time you saw HFR?

Ang Lee: While I was shooting [*Life of Pi* in 2011], people were talking about **James Cameron** and **Peter Jackson** trying 48 fps, and I thought, "Wow, of course they're right." [But] the first time I saw it, I already knew it had a bad name. [At CinemaCon in April 2011] I was going to show three scenes from *Life of Pi*, hoping it would get picked up. And then I heard

that afternoon, just after I arrived, that [Jackson] did a two or three-minute show on *The Hobbit*, and people hated it.

I was quite disturbed, actually. It's obviously the right thing to do. How can people hate it? People said it's like a giant TV. I didn't know why. [Some time later] I actually saw 15 minutes of [*The Hobbit*] in New Zealand when I was promoting *Pi*. The section I saw was a strange sequence. But the movie had a strange look, so I couldn't really judge. I didn't know what to make of it. I knew it was the right direction, I didn't know why it looked like that, or why people said what they said. I was very confused.

Ben Gervais: I was in film school. A friend and I made a trek to go see **Shows-can** [**Douglas Trumbull's** 5/70, 60 fps film system], because we were curious as to what it meant. That was in the late 1990s. My background was in broadcast television even before that.

Then, as a thesis project when I was in film school, unbeknownst to me at the time, I accidentally made a 3D rig by using two broadcast cameras and a beam splitter rig to do slow motion. I thought, "Hey each of these cameras can do 60 frames a second. So if I put them through a beam splitter and change the shutter in the cameras and synchronize them a hundred eighty degrees off from each other, I can get 120 frames."

Shortly after that I was introduced to the people from **Vision Research**, who make the Phantom cameras. A rental house in Toronto was interested in using (see **HFR** on page 4)

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Imax Corporation Appeals \$1M Penalty

In the latest move in a complex six-year legal battle, **Imax Corporation** is asking an appeals court to overturn an award of nearly \$1 million for legal fees and court costs it has been ordered to pay Panama's **Giencourt Investments, S.A.**, a subsidiary of Brazil-based **Racimec International Group**.

In late 2005 Giencourt signed an agreement with Imax to act as a sales agent for IMAX theaters in South America, agreeing to buy three IMAX film projection systems to be installed in locations in Chile and Venezuela. Two years later, the deadline for opening two of the three theaters had passed, and in March 2008, a few months before Imax would begin rolling out its first digital projection systems, the parties entered into a new deal under which Giencourt would buy 35 digital theater systems that would be leased to exhibitors throughout South America. It also gave Giencourt exclusive rights to sell and develop IMAX theaters in South America, Central America, and the Caribbean.

That contract specified that three theaters would open by Dec. 31 2010, with eight more opening by the end of each successive year 2011–2014; however, by the end of 2011, only two theaters had opened. Imax and Giencourt signed an amended agreement in January 2012 that covered the same 35 systems as the previous deal, but eliminated Giencourt's exclusivity by giving Imax the right to sell systems in Giencourt's territory to its existing multi-theater clients not located in that territory. Although it obligated Giencourt to sign 16 theaters and open 12 by the end of 2012, the developer had only signed 12 and opened five by the deadline.

In February 2013, the parties signed another amended agreement that gave Imax the "unfettered right" to make direct sales to any and all clients in South America, Central America, and the Caribbean. (In both of these last two contracts, any sales Imax made would count toward Giencourt's 35-system obligation, in return for which Giencourt would offer various forms of assistance and be paid certain fees by Imax.) By the end of 2013, Giencourt had opened seven IMAX theaters. (It has not opened any additional theaters since.)

In January 2014 Giencourt filed a demand for arbitration, claiming that Imax had breached the exclusivity terms of the contract by signing deals in Ecuador and Colombia and unreasonably refusing to consent to a deal that Giencourt had made in Panama. Giencourt also accused Imax of acting in bad faith by refusing to return advances totaling \$850,000 that it said it was owed, and by refusing to

approve other deals Giencourt had negotiated.

Imax denied all of Giencourt's claims, asserting that the developer had consistently failed to meet its contractual obligations and that it (Imax) had only signed the amended contracts of 2012 and 2013 as a *quid pro quo* for more freedom to make sales in Giencourt's previously exclusive territories. In a counterclaim, Imax said that Giencourt had cost the company over \$1 million in profits.

For the next two years the arbitration proceeded, and a hearing was scheduled in December 2015 at which officials from each company were to testify and present oral arguments. A few days before the hearing was to start, Giencourt filed an application to enforce a settlement agreement it claimed had been reached through e-mail and telephone conversations between Imax's attorney **Mark Welton** and Giencourt CEO **Miguel Sfier**. Despite that, the hearing went forward from December 14 to 18.

The dispute then became a question of whether Imax had in fact made a settlement offer that Giencourt had a right to accept and enforce. In 2016, each side submitted arguments in support of its position. In October 2016, the Tribunal interviewed Welton and Sfier testified again and the parties presented oral arguments for and against accepting the application to enforce the settlement.

In February 2017 the Arbitral Tribunal determined that a settlement agreement had been reached, and in June of that year it ordered Imax to pay Giencourt \$971,525.38 for legal fees and court costs. (Note that this amount does not address the damages the parties claimed from the original alleged breaches of contract, but only the costs of the arbitration battle.)

In October 2017 Imax asked the U.S. District Court for the Southern District of Florida to vacate the award. After oral testimony in June 2019, that request was denied on Jan. 10, 2020.

On Feb. 7, 2020, Imax gave the court notice that it was appealing the decision to the U.S. District Court of Appeals for the Eleventh Circuit.



IMAX Parque del Conocimiento in Buenos Aires, Argentina

D3D Demos Gen2 CineDome in Mobile, AL



The Gulf Coast Exploreum Science Center in Mobile, AL.

In January, D3D Cinema invited representatives of several GS theaters to the Gulf Coast Exploreum Science Center in Mobile, AL, to see the second-gen, three-projector CineDome system it installed in the center's 59-foot dome theater in November (see "Tale of Three Domes," Oct.-Nov. 2019).

The system, earlier versions of which have been installed in Chicago and Cleveland, features three Christie 4K RGB laser projectors that throw a 6K image onto the dome. The latest generation of Christie projectors boasts higher contrast and higher light output than previous systems, at a lower overall cost. Mobile's system also includes a separate laser-illuminated, DCI-compliant insert projector for showing Hollywood and alternative content.

Attendees saw clips from various giant-screen films, including an 11K scan of footage from *Pulse: A Stomp Odyssey* (2002) and an 8K scan of material from *The Magic of Flight* (1997), both shot on 15/70 film. Digitally captured clips from several more recent titles were presented on the full dome, and a 4K trailer of *Wonder Woman 1984* was projected

by the insert projector.

LFX asked everyone who had attended the demo in Mobile for their impressions. A dome theater manager who asked not to be identified said that the image quality of the D3D system was good enough to replace film, and that it would be

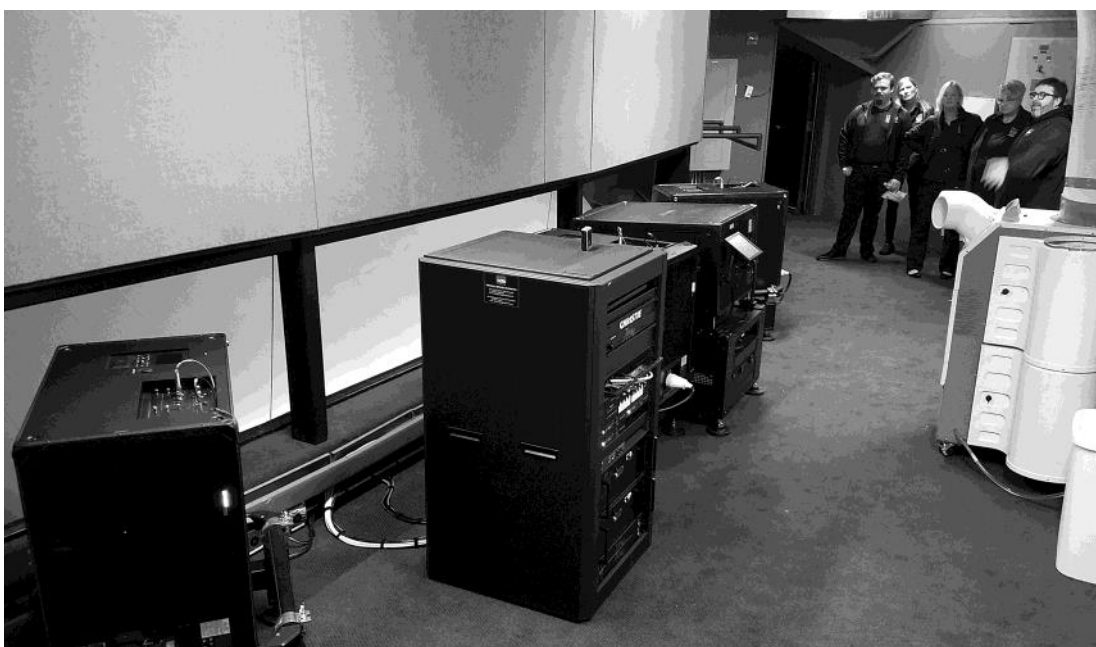
suitable for their theater.

Heather Farnworth, of the Ontario Science Centre in Toronto, declined to comment on the characteristics of the D3D system, but in response to questions about the center's plans to convert to digital provided this statement: "We are looking at transitioning our current IMAX DOME theatre to digital and of course we want as much flexibility as possible with our programming, including the ability to continue playing large-format films, but to consider offering alternative programming

such as planetarium shows, real-time conversations with remote scientists, gaming, and e-sports. We are in the process of fundraising and currently considering all possible solutions and suppliers. Once we have funding confirmation we will work within our procurement guidelines to initiate the project and choose the technology."

Phil Crabtree, general manager of the Naval Aviation Memorial Theater at the National Naval Aviation Museum in Pensacola, FL, about an hour's drive from Mobile, also attended the CineDome demo, even though his theater is not a dome. Opened as an IMAX film theater in 1996, D3D converted the 534-seat flat-screen house to 4K laser in March 2016.

He told LFX that although he had previously been a fan of dome theaters, he had found the "inferior focus, clarity, and contrast" of some digital dome systems "disappointing." Crabtree concluded, "As a fan of the giant-screen format, I can unequivocally say that what D3D and Christie have done with this new laser system has improved the dome experience in all the best ways possible. In my opinion, they have returned the dome to the "wow" experience it was so many years ago."



D3D's Art Mercurio (right) shows staffers from the Naval Aviation Museum the CineDome Gen2 system. The system consists of three Christie laser projectors in portrait mode, a control rack, and insert laser projector in the center.



L to r: Gemini Man technical supervisor Ben Gervais, director Ang Lee, and stereographer Dion Beebe.

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them for commercials. So they got one of the very first HD-resolution Phantom cameras. Back then the software was just made for scientific applications. So I learned it, and made it usable on a film set, as opposed to in a lab. Then [I] worked on developing tools and giving feedback to the company to help make a cinema product, which they later released.

LFX: You started to think about HFR when you had problems shooting 3D on *Life of Pi*. What led you to move in that direction?

Ang Lee: When I did *Pi*, we had a 2D monitor by the camera. You use it to help out the actors, like when you're shooting a water scene and have to tell the actor what to do. I went to look at the 3D [playback monitors in the control booth], and it just looked strange. I had to go back [to the on-set 2D monitor]. Did I remember that wrong? I went back to correct the acting, to do one more take.

After too many times, it clicked with me: wait a minute, it looks different. That's why I kept going back to correct it. I was very sensitive to the performance. That's my thing as a visually trained person. Then I realized the performance has to be different because the two monitors [2D and 3D] don't look the same.

One day it occurred to me: half of the art of cinematography and lighting is to

compensate for the missing depth. You create it. [With 3D] you have that real illusion of depth, so why are you doing lighting [the same way]? Why would you do that? That was a big one.

Anyway, I used a relatively small IO [inter-ocular separation] unless it was CG, when you have full control. Then I went where I wanted to go, exploring. I was still new then. Otherwise, I kept [the depth] very shallow. Back then I knew I couldn't do too much of it. But I knew something was fundamentally different [between] 3D and 2D. Not only composition, many things don't make sense, and nobody can teach me.

In *Avatar* [director James Cameron] placed everything behind the screen, and he linked focus-pull to convergence. That was kind of strange to me.

So for the next movie, I was going to do a boxing movie [about the 1975 "Thrilla in Manila" match between Muhammad Ali and Joe Frazier]. For boxing, I'll have to open up the IO so you can feel the hits. They move so fast and [you have to avoid] strobing. How do I do it? So I started getting to 48 [fps].

I was at **Industrial Light and Magic**, talking about visual effects for that movie. [VFX supervisor] **Dennis Murren** did *Hulk* (2003) [with me], and we became very good friends. He said, "We have a sample of Cameron's [2011] 60 fps test." That's when things opened up for me.

My first viewing of 48 [had been] strange and confusing, but [Cameron] did very well with that demo. It really helped. So I thought, "Okay, at 60 you solve all the problems, at 48, not quite." But I couldn't help notice, as a filmmaker, as he was doing the demonstration, how much he was apologizing for the extras overacting. I also noticed during the sword fighting how much the swords missed each other.

LFX: Everything was showing up.

Ang Lee: Yeah. In the past, when they did that [at 24 fps], it was totally fine. You just didn't think about it. But once it's clear, you have to think about everything about movie making. That was both fascinating and scary to me. Everything we knew, we had to rethink. It pokes though the illusion. But that's fascinating.

So that's how I started. I was totally oblivious to the history of frame rates. I had a little bit of experience in 3D, that was fascinating. I began to get used to it, but not quite.

Dennis said I should check with Doug Trumbull, who invented Showscan. He was promoting 72 fps. So I thought, "There's something beyond even 60?" That makes sense, because every projector shows 144 fps, which is triple flashing [24 fps times two eyes for 3D]. Half that is 72. That makes a lot of sense.

So eventually I got hooked up with Doug Trumbull and I went through the history, Showscan, and even before him they talked about higher frame rate, way back.

Then I did my test. I'm a filmmaker, not a scientist. So it became clear to me that movie making has to change. You cannot change frame rate without changing your movie. Or go to 3D without understanding what you're doing. I think that's where we are now. It took me a long time to know that I didn't know. So that's the journey of the last ten years since *Pi*.

I went to [New Zealand-based special effects company] **Weta [Digital]**, and did some previews of a boxing scene, just to test, because I thought the way we choreograph fights will have to change in 3D. Therefore we need a higher frame rate, because in 3D your mindset is much

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sharper, because it's like life. Because it's sharper, a staged fight will look silly. It doesn't have the beauty.

I just suspected that, so I shot 48 and 60 with different camera shutter angles, and I tested different objects and different movements. Up and down, left and right, in and out. And I did lighting tests, all in 3D.

I also did a performance check. I had a good actor, and I asked him to do emotional scenes, a near-crying monologue. Disturbing content. Three times, and each time I raised the frame rate. I tried to have him give me the same emotion, the same strength, the same as possible. And each time, [it was] more or less the same performance, [but] it got more and more ridiculous.

Then I adjusted [his performance for] the fourth test at 60, and it looked about right to me. He just had to add more layers and less performance.

LFX: So like the difference between a stage performance and a film performance, you have to adapt for HFR?

Ang Lee: It's actually more than that. On stage, you do the stage thing. In a movie, you do the movie thing. In principle, it's the same. A good performance is the same. You take action, you have a reality you've created. It looks real. That, in principle, is the same. But how it looks? Different media have different things. Stage has its thing. A close-up has its thing. Wide angle has a wide-angle thing. Two-D has its thing. Three-D has its thing. Black and white, they all have their thing.

You have to make a judgment so it looks good, so it provokes an audience emotion. That's what we do. That's movie magic. Have you heard the expression, "The camera likes him"? You do what the camera likes. You do what sells. A pretty woman is not pretty until, with makeup and lighting, she looks pretty on the flat screen at 24 [fps]. That's what you are trying to give people, the emotional stimulation. That's movies.

LFX: So then it's a matter of learning what works for every given format, whether it's frame rate or 3D?

Ang Lee: For a given frame rate, why shouldn't you adjust to it? So I did an adjustment, and it looked more [natural]. At least to my eyes. That's why it's hard to explain to people. My eyes are trained, like my crew, [they now] have different eyes. They're not better or worse than anybody. We're just trained differently now.

I found that lighting has to change. The higher the frame rate, and the more volume of 3D you have, back lighting looks more ridiculous. You start to feel that something about the costumes bothers you, then the lighting, the makeup, it feels wrong, too. The contrast gives you a sense of depth and artistic feeling, and we see more clearly. So I have to increase the details, and it flattens out. It's confusing.

Then I started doing *Billy Lynn*. I signed up to do it at 60 [fps] with **Sony [Pictures Entertainment]**. They did a check of the theaters and found it was really a headache. [Ed: In 2016, very few theaters were capable of showing 60 fps 3D.] They were very reluctant to do it, but they promised me. So they were kind of in an awkward situation. And somehow we get **Ben Gervais**.

Ben Gervais: I was actually supposed to do *Life of Pi* but we were on *Hugo* and *Hugo* went over schedule. So I wasn't able to go down there. So my first exposure to Ang was in prep for *Billy Lynn*. The producer on *Billy Lynn* was looking for, in his words, "a tech guy." I had set up post-production workflows for *Pacific Rim*, so I

got referred and flew out to meet Ang one day for lunch. We just kind of hit it off.

Pretty much every director that I've worked with, in stereo, has the same problems with 3D. The second you pan the camera the judder looks really, really strange in stereo. You end up going down this rabbit hole of, "Is there something wrong with the camera, is it the firmware?" And eventually you prove to them that no, this has actually just been there the whole time. It's just that 3D makes you see it. It's exacerbated when it's not on the screen plane.

Stereographers have learned to be conservative. James Cameron's philosophy with shooting *Avatar*, for example, was that the screen is a fish tank and all the 3D should be behind the screen. First do no harm. And that was the right thing to do for a movie at that point in time.

Our stereographer, Demitri Portelli, referred to an area around the front of the cameras as the Zone of Fury, where if we have close foreground extras crossing the camera and things like that, the strobing is just unacceptable from judder. It's because your eyes aren't seeing the same thing at the same time, the interaction of the triple flashing of the projectors, and there's this whole issue with your brain wanting to believe.

Two-D and 3D are fundamentally different, in that 2D is a picture on a wall and you can do a lot with that picture, particu-

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L to r: Director Ang Lee and cast members Joe Alwyn, Brian 'Astro' Bradley, and Mason Lee on the set of *Billy Lynn's* Long Halftime Walk. (Mason Lee is Ang's son.)

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larly when it's in a standard cinema and you can see the frame edges, as opposed to a giant screen, where you don't have that issue. What happens is your brain just thinks, "Okay, that's an image." And as long as you don't get too much tunnel vision, you can do some pretty rough things with the camera and not really give people motion sickness.

As soon as we get into 3D, your brain wants to believe that thing in front of you is real. When we don't have enough information and there's strobe and judder and motion blur and artifacts of triple flash and all that kind of stuff, your brain starts sending your body signals saying that "I'm sick, something's wrong." And that's one of the reasons why people have headaches and eye strain.

Ang had experienced that for himself, and after *Life of Pi*, when he was trying to do the boxing movie, he had seen Jim Cameron's high-frame-rate test, so he did some testing himself where he shot some boxing at 24, and 48, and 60 in stereo.

LFX: Were you involved in that test?

Ben Gervais: I was not. But he came to the conclusion that that was something he wanted to pursue and then when I came on to *Billy Lynn*, he said, "Okay, I definitely want parts of the movie to be at 60 or maybe the whole thing. We don't know, let's have a discussion." The first

thing we ran up against is how do we release to all these theaters if we shoot at 60, because 24 is not a factor of 60, right?

We had a 4K mandate from Sony at the time, because they wanted to be able to say that we were shooting in 4K, so that limited our choice of cameras. One of the candidates was a Sony product, the F65, which was capable of doing 120 frames, and 24 is a factor of 120. So is 60. So we knew that while doing 120 might be difficult, it's the easiest way for us to get both our 24- and 60-frame output products. Worst-case scenario for 60 [is that] we can just drop every other frame, [and] for 24 we could drop four out of every five frames, and we would have a movie. We didn't really know the details of how we were going to try to make it look better than that at that point. But we knew this was probably the path of least resistance, even though it's more data.

There was a meeting where we broke it to the studio that, "Hey there's some good news. We're not shooting the whole movie at 60. The bad news is, we're shooting the whole movie at 120." You can imagine how that conversation went.

Ang Lee: I didn't know what real 120 looked like. I saw Doug Trumbull's *Magi* system [120 fps, but alternating eyes, each at 60 fps]. But I never saw a full system with the right brightness at 120. That I'd never seen, and [at that time] no human being had ever seen it. Murren borrowed

flight simulator projectors from the Air Force. But those [usually show CG] images. For live pictures, nobody had seen that.

Ben Gervais: When we did our very first screening for Ang of 120 4K stereo with the Mirage projectors from Christie, he was so excited to see it. We had just gotten the projectors up and running. He rushes in after a day of testing and says, "Show me something." We said, "Ang, we haven't calibrated the color." He said, "I don't care. I get that it's not going to look perfect. Please show me."

Okay, great. We hadn't calibrated the power on the laser banks, it's only a 12-foot screen, and we had crammed two laser projectors into this booth. So it was *bright*, and the colors were all wrong. We show him a bunch of stuff. He's blown away. He said, "Okay do your thing, calibrate it, and we'll watch seriously tomorrow."

So we do our thing, and the first question is, what brightness should we go to? Well, the standard is 14 foot-Lamberts. So we turn off half the power to the laser modules. We drop it down to 14 foot-Lamberts per eye, which is still four times what most cinemas have, and the next day everybody comes to do a screening. People are like, "Yeah, it looks really cool," and Ang looks at me and says, "What did you do to it?"

"What do you mean, what did I do to it? I calibrated it."

"You sucked the life out of it!"

Well, we had made the color correct. It can't be that. The only other thing we did was the brightness. So I went back in and turned the brightness back up to about 28 foot-Lamberts. A full stop brighter. And I played it again. He said, "There! You've got it!"

Something is happening to you physiologically when you're getting out of the dark-adapted part of your visual process. Your pupils are actually starting to constrict instead of staying all the way open the whole time. It has a marked difference.

Your brain wants to believe that thing in front of you is real. Three-D is a much more first-person type of experience. Ang's wife Jane is a biochemist. There's a chemistry term called activation energy. There



The rig that shot *Billy Lynn's* Long Halftime Walk used Sony F65 cameras.

are situations where you can put all the ingredients together, but you have heat them to a certain point for the chemical process to happen. She and Ang were talking about how the brightness, the 3D, the 4K, and the 120 all combine to do something that all those things on their own don't do. We felt that those four things together have to be at that point to make it as perfect as it can be. Activation energy.

LFX: How do you explain people's reactions to HFR, the complaints about the "soap opera look"? Do you think it's simply a matter of what people are used to or do you think that there's something else going on?

Ang Lee: I can't explain it. I don't know why they see what they see. If you find out, let me know. I can only say that they see different things than I see. That old saying, "You have to see it to believe it"? I don't believe it any more. It's not true any more. Because we see different things, especially in 3D.

Now I'm more interested in the content side. I'm not a scientist. I think how we put things in our minds, that process, is something to study. I don't think people don't give much thought to it.

I was very frustrated. So I tried to get into it. I philosophized it, I analyzed it. Maybe I gave it too much thought. Maybe I was overthinking it.

Ben Gervais: Ang and I have talked for many, many, many hours about this subject, so we're mostly in agreement. I think it's a meeting of two main factors. I think one is audience adjustment, both culturally, what is accepted as the norm, and physiologically, what people are used to. On the other side, it's also the filmmakers' mastery of the tools. They have to meet somewhere in the middle and they start very far apart. From the audience's point of view, we definitely see better feedback [about HFR] from younger people who have more experience with video games, VR, phones, and things like that. And they don't have as much emotional attachment to the way certain films from their childhood looked.

As filmmakers, we have to learn how to imagine our movie tricks over again in a way that's suitable for this medium. When



Ang Lee and Will Smith on the set of Gemini Man.

someone has a bad experience, is it because they're not used to it? That could be. It could also be because we didn't do that shot correctly. We panned the camera too fast or too slow.

It's pretty typical in cinema camera operating to lead your actor. If somebody's sitting down in a chair and you know they're going to get up right after they deliver a line, the camera tends to tilt up just before they get up. Otherwise, they're going to pop out of the frame.

One thing we discovered pretty early on is that in high frame rate that was really jarring. The first thing your brain says is, "Why are we moving if the person on the screen isn't moving?" So we have to be much more choreographed and much more on point in terms of having moves motivated.

Yeah, it looks different, absolutely. It takes you a good ten or 15 minutes to get into how it feels. If people have an open mind for those first ten or 15 minutes, and if we've done our job correctly as filmmakers, then we've got them and they'll just get lost in the story. I think that's really the challenge.

LFX: It seems to me that a lot of the complaints about HFR come from filmmakers and from film critics, but we didn't hear as many complaints from ordinary moviegoers.

Ang Lee: That's right. Those [filmmakers and critics] are, including myself, heavily trained in one direction. It's the same thing with changing the habits of actors. If I want an [experienced] actor to change his method, it's harder than if you pick somebody who has never acted before. But to get sophistication, different layers, you need somebody trained. Then you really have to fight if you disagree with him or her. But trained people are always harder to change.

Ben Gervais: If you look at Rotten Tomatoes, *Gemini Man* got 26% from critics, but the audience rating is up in the 80s. If you do an anecdotal Twitter search for *Gemini Man* HFR+, there are some people who didn't like it. But a lot of people were over the moon about it. So we've got a foothold here. We're starting to change people's minds, even in the industry.

At some point somebody's going to make a movie with a great script and amazing actors and things that the critics absolutely cannot ignore, [and then they'll] accept the thing they don't want to accept.

LFX: What do you think of the idea that nature documentaries could use high frame rate successfully, since they deal with reality, not actors and sets, and want to put their audiences in the real world?

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(from *HFR* on page 7)

Ang Lee: Well, of course. It doesn't have to go through your imagination. Of course you can do that.

Ben Gervais: Absolutely. Anything that gets us closer to what our eyes see should be a worthy goal for most of these projects. That's really what we're trying to do, give people an experience that they wouldn't otherwise be able to get because of issues of education, access, financial ability. It's all well and good for a rich guy to go on a safari to sub-Saharan Africa, but not everybody has that kind of cash. And even if they do go, they don't get to be five feet from the animals that they would like to see. In documentaries, that's our job, to give people this type of first-person experience that can be unmatched by even an in-person experience in some ways. So anything that gets us closer to that realism is desirable.

LFX: A concern some giant-screen producers have regarding HFR is that they are now using 6K or 8K cameras that, at the moment, can't do 120 fps, and they don't want to have to drop back to 4K. Obviously, cameras will continue advancing technologically, but do you think that projecting a 4K image at 120 fps on a giant screen would be problematic?

Ben Gervais: Well, yes and no. Obviously if we could shoot at a higher resolution at 120, that would be something. The problem right now is, yeah, you've got 6K cameras, but [can you] show me a 6K pro-

jector? We're still projecting with 4K projectors, and as nice as super-sampling is, every time they move that camera, every time something on that camera moves, because of the low frame rate, all that detail is gone. So they aren't actually capturing 4K images in motion. They're capturing something much lower than that.

Lately, in broadcast there's been this big push: not more pixels, better pixels. And that's got to do with two things: frame rate and contrast. As we have discovered in many, many tests, if you add contrast, people believe the resolution is higher. In the human brain those two things are linked. So my argument would be that you can still work in 4K, as close to an uncompressed image as you possibly can, because that gives you a higher quality 4K. The frame rate and the projection technology, in terms of being able to obtain higher contrast, are more easily achievable and actually a better experience for the audience, even on a giant screen.

LFX: What would you say to producers who want to go out and shoot a documentary in 120 with a 3D rig? What's it going to cost, both in shooting and post-production? What should they be prepared for?

Ben Gervais: There's no doubt that it's more expensive. It's difficult to work with, because the tools aren't fully developed. And yes, the data load is a little higher. But of all the variables, and documentary filmmakers are more familiar with this

than anybody because of their shooting ratios, storage is actually pretty cheap. Even on the budgets that documentary filmmakers have. The least problematic part of the whole discussion is how much data you shoot.

So I think it's absolutely achievable. And just like every problem in production, it's something that has to be solved in the pre-production budget planning stage. If you plan for it, and you've gotten a little bit of advice and expertise and are able to think about your whole movie from beginning to end, rather than getting excited about an idea and [saying], "Let's go shoot and figure it out later." That's going to get you into trouble. But that's not unusual, even without this technology. So it's just that much more of an emphasis on making sure that you know exactly what's involved and then you can go and do it.

LFX: Would you consider going back and shooting another 24 frame film at this point?

Ang Lee: Probably not. It's a hard question to answer, because everybody has asked me, "Will you go back to the lovely story movies?" Like I lost my heart or something. It's not like that. I have even more passion than before, but I have to trust what's there, what I see.

LFX: Thank you both for talking with me.

Premiering This Month

Ancient Caves

Oceanic Research Group; distributor: MacGillivray Freeman Film Distribution; director, DP: Jonathan Bird; producers: Jonathan Bird, Art Cohen; script: Art Cohen, Jonathan Bird; score: Bruce Zimmerman; executive producers: Christine Bird, Mike Day, Dave Duszynsky, Robin Doty. Cast: Dr. Gina Moseley, Dr. Larry Edwards, Brian Kakuk, Todd Kelly, Dr. Keith Tinker. Narrator: Bryan Cranston. Release: March 13.

"Dr. Gina Moseley is a scientist on a mission as she travels the world exploring vast underground worlds in her quest to

unlock the secrets of the Earth's ancient climate in the most unlikely place: caves. The fingerprints of past climate change are stored in stalagmites, formed by ancient dripping water. Gina's need for underwater samples leads her to world-renowned cave diver Brian Kakuk. Brian can go where Gina can't, and together they can reach places very few humans will ever go.

"*Ancient Caves* brings science and adventure together as the team embarks on an expedition to some of the world's most extreme caves, both above and below the water, to learn

how fast the climate can change, and how it has affected human civilization."



MacGillivray Freeman Films

THE BIZ

(from **BIZ** on page 20)

dome theaters and planetariums world-wide. Produced by Australia's **Prospero Productions**, the film "explores the mysteries of humpback whales, following their migration from the top of Western Australia to Antarctica and back again," according to a press release. Filmed specifically for fulldomes, the film was directed by **Julia Redwood** and is narrated by Australian actor **Marta Dusseldorp**. It is available in 45- and 27-minute versions.

December Dist. to shut down

According to an e-mail from **Mark Bretherton**, Australia-based production company **December Media** "have determined that handling distribution internally from Australia with a small slate of films is not a practical option for a company whose specialty is film production. With that in mind, December intend suspending the majority of activities of **December Media Distribution**. DMD will continue to operate in markets such as China and continue to service existing clients. Looking ahead, the company will focus on film production and seek external distribution partners for those films."

Bretherton goes on to say that although he will continue to assist December in a limited capacity, he is now consulting to the owners of the **Sydney IMAX Theatre**, "working on new branding for the theatre; recruiting staff; planning the education programme, and creating a PR and marketing strategy for the re-launch."

Bretherton managed the original Sydney IMAX, which had boasted the world's largest cinema screen, from shortly after its opening in 1996 to its closing in September 2016 to make way for a major new mixed-use building known as "The Ribbon." The new theater will reopen in that building in late 2020 or early 2021.

In Saturn's Rings news

Stephen van Vuuren, producer of *In Saturn's Rings*, is offering prizes to people or organizations who volunteer computer time to help with the 8K rendering of the fulldome version of the film. The original

version of the film's 40-second, five-million-galaxy shot, the "most complicated multiplane photoanimation in film history," took 5.5 years of machine time to render at 5600x4200 pixels. The 8K version requires processing nearly five times as much data, and stitching the six camera views further complicates the process.

Volunteers who help with the rendering will have a chance to win **Red Giant Software's** complete set of digital filmmaking and visual effects tools.

Van Vuuren is also planning a European roadshow for *In Saturn's Rings* in the summer or fall of 2020. Geneva, Switzerland-based **Meg Duell** is coordinating the scheduling and planning of the screenings and is looking for European companies and organizations to sponsor screenings.

For more details, visit in-saturnsrings.com.

Shedd named professor in Sweden

Oscar-winning director **Ben Shedd** has been named the first Peter Wallenberg Guest Professor of Visual Science Communication at **Linköping University** in Norrköping, Sweden. He will join the research group for visual learning and communication in the university's Media and Information Technology division. The campus hosts an 8K SCISS Holography fulldome system in a 99-seat 48-foot (14.7-meter) dome.

The one-year position is funded in part by a \$1.6 million donation from the Knut and Alice Wallenberg Foundation.

Shedd won the Academy Award for the documentary short *The Flight of the Gosamer Condor* (1978), and directed the GS films *Seasons* (1987) and *Tropical Rain Forest* (1992). Since 2014 he has been professor of digital filmmaking at the **Nanyang Technological University in Singapore**.



Ben Shedd

In memoriam: George MacDonald

George MacDonald, founding director of the **Canadian Museum of Civilization**, died on Jan. 22, at age 81. Born in Galt (now Cambridge), ON, in 1938, he earned a B.A. with honors in anthropology from the University of Toronto in 1961 and later earned a Ph.D. in anthropology from Yale University.



George MacDonald

In 1960 he joined the National Museum of Canada as an archaeologist, becoming its director in 1983, and heading the creation of the Canadian Museum of Civilization (now known as the **Canadian Museum of History**). MacDonald oversaw the construction of its new building in Gatineau, ON, in 1989, which sparked controversy for its cost overruns and for MacDonald's push to modernize the museum experience with computers, interactive exhibits, and an IMAX theater. Critics branded this as "Disneyfication," but MacDonald's visionary ideas about updating the museum experience were subsequently widely adopted by museums around the world.

MacDonald was named director emeritus upon retiring from the museum in December 1998. He then became CEO of **Museum Victoria** in Melbourne, Australia, a position he held until 2002.

Throughout his career he published several books and numerous papers on anthropology and archaeology, and in 2006 he was invested as a member of the Order of Canada.

MacDonald's wife of 58 years, Joanne, also a noted scholar, died in 2018. He is survived by their two children, one grandchild, and his sister. A memorial service will be held at the Museum of History in the spring.



Mar '20	Jul '20	Jan
AncCav	TrainT AstHun	DinDan
		Tenet
		Mars Snow Tiger
		Angkor OceCur AmArct
		AITU Artem
		FormE

* New listing.

All films are 3D unless noted; underlined titles are 2D.

Updated information is printed in **bold**.

Unless noted, all films run about 40 minutes.

Train Time

Stephen Low Company; distributor: Stephen Low Company; director, script: Stephen Low; producers: Pietro Serapiglia, Stephen Low; executive producer: Paul Globus. 2D. Release: April 15.

- Principal photography is complete, post-production is under way.

Asteroid Hunters (formerly Asteroid Impact)

Imax Corporation, Huahuang Pictures; distributor: Imax Corporation; director: W.D. Hogan; producers: Jini Durr, Phil Groves; DP: Sean MacLeod Phillips; script: Phil Groves; executive producers: Anna Chi, Phil Groves. Cast: Marina Brozovic, Mark B. Boslough, Kelly Fast, Nahum Melamed. Release: April 17.

- Principal photography is complete, post-production is under way.

Dino Dana: The Movie

Sinking Ship Entertainment; distributor: Sinking Ship Entertainment; director: J.J. Johnson; producers: Eric Beldowski, Blair Powers, Christin Simms, Matthew J.R. Bishop; DP: George Lajtai CSC; script: J.J. Johnson, Christin Simms; score: Michael-Paul Ella. Executive producers: J.J. Johnson, Blair Powers, Christin Simms, Matthew J.R. Bishop. Cast: Michaela Luci, Saara Chaudry, Nicola Correia-Damude, Amish Patel. 2D. 30 minutes. Release: June.

- A shorter version is being prepared.

Tenet

Syncopy; distributor: Warner Bros.; director, writer: Christopher Nolan; producers: Christopher Nolan, Emma Thomas; DP: Hoyte Van Hoytema; score: Ludwig Göransson; executive producer: Thomas Hayslip. Cast: John David Washington, Michael Caine, Kenneth Branagh, Robert Pattinson. 2D. Release: July 17.

- Principal photography continues.

Mars 1001

Mirage 3D; distributor: K2 Studios; director, writer: Robin Sip; DP: Christiaan Wouda; score: Mark Slater. Cast: Miles O'Brien. Release: September.

Snow (wt)

Saint Thomas Productions, nWave Pictures; distributor: nWave Pictures Distribution; directors: Jacqueline Farmer, Cyril Barbançon; producers: Jacqueline Farmer, Cyril Barbançon, Eric Dillens; DP: Cyril Barbançon; script: Jacqueline Farmer, Cyril Barbançon, Philippe Chappuis, Andy Byatt; executive producers: Jacqueline Farmer, Cyril Barbançon, Eric Dillens. Release: September.

- Recently filmed fauna of the Pyrenees.

Tiger, Tiger

White Mountain Films, Kennedy/Marshall Company, Imax Corporation; distributor: Imax Corporation; director: George Butler; producers: George Butler, Keero Birla, Caroline Alexander; DPs: Reed Smoot, Tom Hurwitz; script: Caroline Alexander; score: Mark Kilian. Executive producers: Julian Robertson, Frank Marshall. Cast: Dr. Alan Rabinowitz. 2D. Release: September.

- Principal photography is complete, post-production is under way.

Angkor: Lost Empire of Cambodia (wt)

Definition Films, Helio Projects Asia; distributor: K2 Studios; director: Murray Pope; producers: Christopher Zaryc, David Gross, Murray Pope; DP: Earle Dresner; script: Murray Pope, Paul Phelan; executive producers: Ed Capelle, Mark Kresser, Nick Robinson, Kulikar Sotho, John Weiley. Release: October.

- Principal photography is complete, post-production is under way.

Ocean Currents (wt)

Wild Pacific Media, Definition Films; distributor: K2 Studios; director: Nick Robinson; producers: Nick Robinson, Electra Manikakis, Peta Ayers; DP: Nick Robinson, Jonathan Shaw ACS, Caspar Mazzotti; script: Nick Robinson, Peta Ayers; score: Hylton Mowday; executive producers: David Gross, Electra Manikakis, Nick Robinson. Cast: Silvia Earl. Release: October.

America's Arctic

Terra Mater Factual Studios; distributor: Cosmic Picture Distribution; directors: Myles Connolly, Florian Schulz; producers: Wolfgang Knöpfler, Walter Köhler; DP: Florian Schulz; script: Myles Connolly, Florian Schulz; score: Alex Heffes. Release: Fall.

- Filmed in the Arctic National Wildlife Refuge from 2014–2019.
- Principal photography is complete, post-production is under way.

Antarctica: Into the Unknown

BBC Studios Natural History Unit; distributor: SK Films; director: Fredi Devas; producers: Jonny Keeling, Myles Connolly; script: Fredi Devas, Jonny Keeling; score: Jacob Shea; executive producer: Jonathan Williams. Release: Fall.

Artemis: Beginning of a New Era (wt)

Afterglow Studios; distributor tba; director: Luke Ployhar; producers: Luke Ployhar, Ashley Jahnke; script: Scott Pearson. Release: Fall.

Formula E: Racing to the Future

Producer/distributor: tba; director, DP: Peter Chang. Release: late 2020.

Ireland

MacGillivray Freeman Films; distributor: MacGillivray Freeman Films; director: Greg MacGillivray; producer: Shaun MacGillivray. Release: March 17, 2021.

- Principal photography is complete, post-production is under way.

Serengeti

K2 Studios; distributor: K2 Studios; director: Michael Dalton-Smith; producers: Michael Dalton-Smith, David Gross; script: Michael Dalton-Smith, Karen Gordon; executive producers: David Gross, Mark Kresser, Michael Dalton-Smith. Release: March 2021.

Secrets of the Sea

Howard Hall Productions, Oceanic Research Group; distributor: tba; directors: Howard Hall, Jonathan Bird; producers: Michele Hall, Christine Bird; DPs: Howard Hall, Jonathan Bird; script: Howard Hall; score: Bruce Zimmerman, Alan Williams; executive producers: Michele Hall, Christine Bird. Release: Spring 2021.

- Shooting planned for Indonesia and the Bahamas this spring.

Wings Over Water (formerly Wings 3D)

*Dorsey Pictures, Archipelago Films; distributor: SK Films; directors, producers, script: Andrew Young, Susan Todd; DP: Andrew Young; executive producer: Chris Dorsey. **Charlie S. Potter**. Release: Spring 2021*

- December: In Bosque del Apache, NM, filmed sandhill cranes, in Arkansas shooting wintering mallard grounds.
- January: North Dakota to film snow aerials, landscapes, and bison. Filmed tiger salamanders below the ice.
- February: Filmed yellow warblers in Costa Rica.

Cool Cities (wt)

K2 Studios; distributor: K2 Studios; director: Nick Robinson; producer: David Gross; executive producers: Robert Kresser, Mark Kresser, Mark Krenzien, David Gross. Cast: Tim Jarvis. Release: May 2021.

Ireland
SerengSOTS
WOWCoolCi
NewEng

EIU

FireFi
JTTGMR
SharkHe**New England and the Sea of Stories (wt) ***

A signature film for the Museum of Science, Boston.

Cosmic Picture; distributor: Museum of Science, Boston; director: Daniel Ferguson; producer: Taran Davies; script: Daniel Ferguson; DP: Reed Smoot. 2D. Release: May 2021.

– Filming will begin in April.

Einstein's Incredible Universe (wt)

Cosmic Picture; distributor: tba; director: Daniel Ferguson; producers: Taran Davies, George Duffield, Daniel Ferguson; script: Daniel Ferguson, Mose Richards; DP: Reed Smoot. Release: Fall 2021.

Fire Fighters

Sean Casey Productions; distributor: tba; director, DP: Sean Casey. 2D. Release: 2021.

– Shooting in Southern California began last fall and continued through January.

– Shooting will resume in summer.

Journey to the Great Mayan Reef

Milbrand Cinema; distributor: tba; director, producer, DP: Lance Milbrand; editor: Dave Choice; score: Icarus Music. Cast: Kathleen Dudzinski, Eldon Bolton. Release: 2021.

– Principal photography is complete, recording of narration track is in progress.

Shark Heroes (wt)

Definition Films; distributor: K2 Studios; director, writer: Amelia McCarten; producer: David Gross; DP: Jonathan Shaw ACS; executive producer: Mark Kresser. Release: 2021.

DMR FILMS:

Title	Dist	Release
Onward	WDP	3/6/20
Bloodshot	Sony	3/13/20
I Still Believe	LionsG	3/13/20
A Quiet Place Part II	PAR	3/20/20

Mulan	WDP	3/27/20
Beastie Boys Story	Poly	4/3/20
No Time to Die	MGM	4/10/20
Black Widow	WDP	5/1/20
Fast & Furious 9	UP	5/22/20
Wonder Woman 1984	WB	6/5/20
Top Gun: Maverick	PAR	6/26/20
The King's Man	FOX	9/18/20
Venom 2	Sony	10/2/20
Eternals	Sony	11/6/20
Dune	WB	12/18/20
Shang-Chi	WDP	2/12/21
The Batman	WB	3/25/21
Fast & Furious 10	UP	4/2/21
Doctor Strange	WDP	5/7/21
Jurassic World 3	UP	6/11/21
Indiana Jones (untitled)	WDP	7/9/21
Spider-Man (untitled)	WDP	7/16/21
Mission: Impossible 7	PAR	7/23/21
Thor: Love and Thunder	WDP	11/5/21
Avatar 2	FOX	12/17/21



First assistant camera/focus puller Philippe Prud'Homme (left) and key grip/master rigger Derek Teakle (right) rigging a 15/65 camera on a BNSF locomotive in Bend, OR, for the Stephen Low Company's Train Time.

Bookings: March 2020 by Film

697 bookings of 87 films in 168 theaters

These listings do not include Hollywood films shown in multiplex IMAX theaters. Those films are listed when they are shown in non-multiplex theaters, and conversely, non-Hollywood giant-screen films showing on multiplex IMAX screens are also listed.

Listings shown in **bold face** below are new or updated listings. The rest are unchanged from the previous

month's issue.

The data on the following pages are *not* warranted to be comprehensive or accurate in every detail, despite our best efforts to make them so. They have been compiled from theater surveys, distributors, the Web, and other sources.

We will make every effort to improve the thorough-

ness, and accuracy of these data. If your theater or film is not shown here, please get in touch with us to update our listings.

Where a date is not shown, it means that no date was provided by the source or, in the case of a closing date, that no date has been set, or that the run is indefinite.

The key to film abbreviations is on page 17.

Film	Theater	Open	Close	Film	Theater	Open	Close	Film	Theater	Open	Close
A11FSE	Atlanta FMNH	6/1/19	5/30/20	AMJ	Kuwait SCK	6/14/18	3/31/20	Bugs	Seattle PSC 2	12/20/19	12/19/21
	Austin TSHM	9/1/19	8/30/20		London BFI Ode	3/29/19	3/31/20		Tijuana	3/15/20	3/14/21
	Baton Rouge LASM	7/6/19	7/5/20		Norwalk MA	5/17/19	5/16/20		Toronto OP	2/15/20	2/14/21
	Birmingham AL	5/19/19	5/18/20		Orlando SC	2/24/18	6/30/20		Victoria DCI	11/22/19	11/21/20
	Bradford	5/17/19	8/31/20		Peoria RM	6/20/18	6/30/20		Columbus COSI	9/15/14	6/30/20
	Branson	6/14/19	6/13/20		Pittsburgh CSC	11/17/17	12/31/20		Davenport Put	10/1/12	4/28/20
	Chantilly	5/17/19	5/17/20		Richmond SMV	5/1/18	6/30/20		Edmonton TWS	6/30/18	6/30/20
	Chattanooga TA	6/14/19	6/13/20		Sacramento Imx	9/8/17	6/30/20		San Diego RHF	7/1/14	6/30/20
	Chicago MSI	5/24/19	5/23/20		Seattle PSC 2	11/10/17			Chattanooga TA	11/1/19	11/1/20
	Cincinnati MC	9/28/19	9/27/20		Sioux Falls	12/2/17	5/31/20		Victoria DCI	8/18/17	4/15/21
	Cleveland	5/18/19	5/17/20		Tallahassee CLC	4/28/17	6/30/20		Fort Worth	6/10/17	9/30/20
	Copenhagen TBP	6/12/19	6/11/20		Toronto OSC	10/6/17	6/30/20		Aguascalientes	10/25/19	3/25/20
	Davenport Put	7/13/19	7/12/20		Vancouver TWS	12/22/17	6/30/20		Charlotte DP	9/1/19	9/1/20
	Dayton	5/25/19	5/24/20		Victoria DCI	4/14/17	6/30/20		Chicago MSI	3/1/19	3/31/20
	Dearborn THF	6/17/19	6/16/20		Aguascalientes	4/5/19	3/31/20		Galveston	3/9/19	3/31/20
	Denver MNS	5/17/19	5/16/20		Austin Reg	3/1/19	6/1/20		Lucerne STM	10/25/19	10/31/20
	Fort Worth	5/17/19	5/16/20		Baton Rouge LASM	5/25/19	5/24/20		Memphis Pink	9/19/19	9/17/21
	Garden City	5/21/19	5/20/20		Birmingham AL	1/17/20	5/31/20		Pittsburgh CSC	11/1/19	10/31/20
	Hampton VASC	6/15/19	6/14/20		Cleveland	3/23/18	3/31/20		Saint Paul SMM	3/1/19	3/1/20
	Huntsville USSRC	6/1/19	5/30/20		Guayaquil	4/16/19	4/15/20		Seattle PSC 2	6/14/19	6/30/20
	Hutchinson	5/17/19	5/16/20		Hartberg	4/6/19	4/15/20		Singapore DC	9/17/19	3/17/20
	Indianapolis Imx	7/12/19	7/11/20		Kapurthala	6/15/18	6/14/20		Tallahassee CLC	1/18/19	6/30/20
	London SM	5/17/19	5/16/20		Monterrey Pap	3/15/18	4/15/20		Victoria DCI	3/29/19	3/31/20
	Lucerne STM	5/24/19	4/1/20		Moscow Kin	4/15/18	4/16/20		Gatineau	9/1/15	12/31/20
	Melbourne MV	10/1/19	6/30/20		Nassau Fus	10/30/19	10/30/21		San Jose Tech	5/15/19	6/30/20
	Memphis Pink	5/25/19	5/24/21		Peoria RM	2/16/18	3/1/21		Aguascalientes	4/13/19	4/30/20
	Norwalk MA	5/17/19	5/16/20		Pittsburgh CSC	1/25/19	12/31/20		Albuquerque NMMNH	3/1/20	3/1/21
	Orlando SC	7/1/19	6/30/20		Shanghai 3D STM	7/24/19	7/23/20		Denver MNS	2/14/20	2/13/21
	Osaka Sci	7/20/19	7/21/20		Sioux Falls	2/1/19	5/30/20		Fort Lauderdale	2/14/20	2/13/21
	Pensacola NAM	5/17/19	5/16/20		Hangzhou LCSTM	1/1/20	12/31/20		Fort Worth	3/6/20	3/6/21
	Peoria RM	5/25/19	5/24/20		Lehi	9/6/19	9/5/20		Houston MNS	2/14/20	2/13/21
	Philadelphia FI	5/17/19	5/17/20		Melbourne MV	7/1/16			Lehi	2/28/20	2/27/21
	Phoenix ASC	5/17/19	5/16/20		Victoria DCI	4/16/18	4/15/21		Los Angeles CSC	2/14/20	2/13/21
	Pittsburgh CSC	5/19/19	12/31/20		Chicago MSI	3/15/20	3/14/21		Louisville KSC	3/27/20	3/27/21
	Portland OMSI ET	5/17/19	5/16/20		Galveston	3/7/20	3/6/21		Lubbock SS	2/14/20	2/13/21
	Raleigh	7/5/19	7/4/20		Hutchinson	3/13/20	3/13/21		Memphis Pink	2/20/20	2/19/21
	Sacramento Imx	7/12/19	7/1/20		Gatineau	4/24/18	6/30/20		Mexico City Pap	3/23/20	9/22/20
	Saint Louis SC	2/14/20	2/13/21		Garden City	5/19/17	6/18/20		Mobile	2/22/20	5/31/20
	Saint Paul SMM	5/17/19	5/11/20		Kolkata SC	1/1/19	12/31/20		New Orleans	3/6/20	5/30/20
ACGOTS	Salt Lake City Clark	6/22/19	6/21/20		Baltimore MSC	3/1/19	6/30/20	Dolphins	Phoenix ASC	2/14/20	2/13/21
	San Jose Tech	5/17/19	5/16/20		Beijing 3D CSTM	11/1/19	8/5/20		Pittsburgh CSC	2/21/20	5/31/21
	Seattle PSC 2	5/31/19	7/18/20		Chattanooga TA	3/16/18	6/30/20		Portland OMSI ET	3/1/20	3/1/21
	Shreveport	7/4/19	7/3/20		Detroit MSC	3/1/20	2/28/21		Salt Lake City Clark	2/14/20	2/13/21
	Sinsheim	5/17/19	5/16/20		Edmonton TWS	11/8/19	11/7/20		San Diego NHM	2/15/20	2/14/21
	Speyer Dome	5/17/19	12/31/20		Fort Lauderdale	6/1/18	4/24/20		Gatineau	7/19/18	6/30/20
	Tallahassee CLC	7/12/19	7/11/20		Gatineau	6/1/18	3/31/20		Speyer Dome	6/1/00	12/31/20
	Tijuana	12/2/19	12/1/20		Guangzhou GSC	5/1/19	5/1/20		Baltimore MSC	2/17/17	3/1/21
	Toronto OSC	5/17/19	11/16/20		Guayaquil	4/3/19	3/31/20		Bradford	1/1/18	8/31/20
	Toulouse CDE	6/1/19	4/1/20		Lehi	5/24/18	5/24/20		Cleveland	3/17/17	3/31/20
	Valencia Spn	7/1/19	6/30/20		Los Angeles CSC	9/28/19	4/1/20		Davenport Put	2/24/17	3/31/20
	Vancouver TWS	11/23/19	11/22/20		Louisville KSC	3/23/18	6/30/20		Dearborn THF	2/17/17	7/1/20
	Victoria DCI	9/20/19	9/19/20		Norwalk MA	3/24/18	6/30/20		Edmonton TWS	3/25/17	2/25/21
	Washington NASM	5/17/19	5/17/20		Omaha Zoo	11/1/18	6/30/20		Fort Lauderdale	2/17/17	6/6/20
	Yellowstone	5/17/19	5/16/20		Orlando SC	11/1/18	6/30/20		Fort Worth	2/17/17	6/30/20
AfricAdv	Corpus Christi Lex	6/17/16		BFTB	Pittsburgh CSC	8/31/18	12/31/20		Grand Rapids Cel	7/15/17	7/31/20
	Pensacola NAM	5/26/17	6/30/20		Portland OMSI ET	9/7/18	6/30/20		Hampton VASC	2/17/17	12/31/20
	Toronto OP	6/1/18	6/1/20		Raleigh	6/4/18	6/30/20		Harrisburg	2/18/17	3/1/20
	Victoria DCI	5/3/19	5/31/20		Saint Augustine	8/17/19	8/16/20		Houston MNS	2/17/17	1/7/21
	Washington NASM	5/26/17	5/25/20		Saint Louis SC	1/26/20	1/25/21		Jersey City	2/17/17	11/15/20
AGWN	Katowice CC		9/30/20		Shanghai 3D STM	11/1/19	1/24/21		Kuwait SCK	6/25/17	8/31/20
	Krakow CC		9/30/20		Sioux Falls	2/1/19	5/31/20		Lansing Cel	6/30/17	7/31/20
	Lodz CC		9/30/20		Sudbury	9/4/18	6/30/20		Louisville KSC	2/17/17	6/30/20
	Lucerne STM	1/1/20	8/31/20		Taichung NMNS	7/1/19	6/30/20		Milwaukee	7/10/17	6/30/21
	Poznan CC		9/30/20		Tallahassee CLC	10/18/18	6/30/20		Monterrey Pap	2/2/18	4/15/20
AIWC	Warsaw CC		9/30/20		Victoria DCI	1/18/19	6/30/20		Moscow Kin	9/10/17	6/2/20
	Wroclaw CC		9/30/20		Atlanta FMNH	1/17/20	2/16/21		Nassau Fus	10/30/19	10/30/21
	Orlando SC	9/1/19	8/31/20		Cleveland	2/8/20	1/31/21		Peoria RM	2/18/17	6/1/20
	Phoenix ASC	3/13/20	3/13/21		Davenport Put	11/1/19	10/31/20		Philadelphia FI	3/1/18	3/31/20
	Portland OMSI ET	3/1/19	11/30/20		Edmonton TWS	1/17/20	1/16/21		Pittsburgh CSC	11/17/17	12/31/20
AmazAdve	Tijuana	4/12/19	4/11/20		Fort Lauderdale	10/25/19	10/24/20		Port of Spain	5/3/19	5/2/20
	Sacramento Imx	5/1/15	6/10/20		Hastings	10/25/19	10/24/20		Portage Cel	6/30/17	7/31/20
	Cleveland	1/9/18	6/30/20		Houston MNS	1/6/20	1/5/21		Regina	3/1/20	3/31/20
	Denver MNS	1/16/20	6/30/20		Lubbock SS	12/6/19	12/2/20		Richmond SMV	2/18/17	6/30/20
	Edmonton TWS	1/19/18	6/30/20		Orlando SC	11/8/19	11/7/20		Saint Augustine	2/17/17	6/30/20
AmazAdve	Glasgow	4/12/19	4/14/20		Salt Lake City Clark	11/16/19	5/22/20		Saint Paul SMM	2/3/20	2/2/21
	Indianapolis Imx	9/8/17	5/31/20		San Jose Tech	10/25/19	10/24/20		Sioux Falls	6/2/17	5/30/20

Film	Theater	Open	Close	Film	Theater	Open	Close	Film	Theater	Open	Close
DSC Everest	Thessaloniki SCTM	10/28/17	10/11/20		Edmonton TWS	9/15/19	9/14/20	ISR	Vancouver TWS	2/29/20	2/28/21
	Vancouver TWS	3/4/17	6/30/20		Fort Worth	7/26/19	7/25/20		Washington NASM	2/14/20	2/13/21
	Victoria DCI	3/17/17	6/30/20		Galveston	8/30/19	8/18/20		Albuquerque NMMNH	9/1/19	8/31/20
	Portland OMSI ET	6/13/19	6/14/21		Gatineau	7/2/19	7/1/20		Dearborn THF	7/1/19	6/30/20
	Gatineau	7/30/18	6/30/20		Hague	10/15/19	10/15/20		Hastings	9/1/19	12/31/20
ExpChesa	Hague	9/1/19			Harrisburg	2/15/19	4/1/20	Jerusalem	Aguascalientes	10/1/19	3/31/20
	Kapurthala	6/15/18	6/14/20		Houston MNS	1/18/19	1/17/20		Austin TSHM		3/31/21
	Baltimore MSC	10/1/19	9/30/21		Jersey City	3/15/19	3/14/20		Edmonton TWS	12/26/13	6/30/20
	Chattanooga TA	10/1/19	12/31/21		Kansas City Sci	7/4/19	7/3/20		Fort Worth	3/21/16	10/24/22
	Galveston	10/1/19	12/31/21		Lubbock SS	10/18/19	10/17/20		Galveston	1/1/19	4/30/20
ExtrWeat	Harrisburg	3/20/19	12/31/21		Melbourne MV	1/1/20	12/31/20	JTM JTS	Hague	3/31/14	6/30/20
	Virginia Beach AMSC	9/3/19	10/12/21		Milwaukee	9/1/19	9/27/20		Jersey City	9/1/18	8/31/20
	Baltimore MSC	3/1/19	6/30/21		Montreal SC	10/1/19	9/30/20		London BFI Ode	2/26/20	2/28/21
	Calgary TS	9/1/17	9/1/20		Orlando SC	2/23/19	4/1/20		Louisville KSC	1/20/14	7/20/20
	Davenport Put	10/15/16	10/14/20		Phoenix ASC	10/12/19	10/11/20		McMinnville	9/27/13	11/30/20
	Edmonton TWS	6/2/17	6/1/20		Raleigh	3/1/19	5/19/20	JTTSP L&C	Sacramento Imx	9/15/14	10/23/20
	Kansas City Sci	10/15/16	12/31/21		Regina	2/15/19	10/10/20		San Diego RHF	11/20/15	4/3/20
	Lodz CC	10/15/19	10/31/20		Saint Augustine	2/15/19	4/1/20		Speyer Dome	12/12/13	12/12/20
	Louisville KSC	10/14/19	10/14/21		Saint Louis SC	11/29/19	11/28/20		Kuwait SCK	7/26/19	8/31/20
	Melbourne MV	4/1/19	3/31/20	GC GCA	San Diego RHF	2/28/20	2/27/21		Al Khobar	6/1/19	6/1/20
	Memphis Pink	3/24/17	8/31/21		San Jose Tech	2/11/20	2/11/21	MA	Tallahassee CLC	6/22/18	6/21/21
	Peoria RM	10/15/16	10/21/21		Seattle PSC 2	5/3/19	5/2/20		Thessaloniki SCTM	12/14/18	12/31/20
	Pittsburgh CSC	11/17/17	12/31/20		Singapore SC	3/16/19	4/1/20		Washington NASM	3/6/15	
	Raleigh	10/17/16	10/15/21		Sudbury	2/15/19	6/30/20		Speyer Dome	5/25/17	12/31/20
	Sacramento Imx	2/24/17	10/14/20	GlobSoun	Toronto OSC	2/15/19	6/30/20		Davenport Put		4/26/20
	Saint Augustine	10/15/16	10/30/20		Vancouver TWS	2/15/19	4/1/20	LITAOA	Fort Worth	9/1/03	12/31/23
	Saint Louis SC	1/13/17	12/11/21		Victoria DCI	2/15/19	4/1/20		Louisville KSC	7/2/18	7/2/20
	Salt Lake City Clark	10/24/16	11/18/21		Yellowstone	5/17/19	5/16/20		Portland OMSI ET	7/21/15	10/11/21
	San Jose Tech	10/15/16	10/30/21		Grand Canyon DCI	11/1/99	12/20		Raleigh	1/1/15	7/2/20
	Sioux Falls	2/1/17	3/31/20	HidUniv	Grand Rapids Cel	9/1/18	7/31/20		Saint Augustine		6/14/20
FlyMons	Tallahassee CLC	5/19/17	5/1/20		Lansing Cel	5/1/19	7/31/20	MAOOB	Saint Louis SC	3/1/20	2/28/21
	Wroclaw CC	10/15/19	10/31/20		Portage Cel	9/1/18	7/31/20		San Diego RHF		4/3/20
	Davenport Put	3/27/14	6/1/20		Richmond SMV	6/1/16	6/30/20		Sioux Falls	10/25/16	11/18/21
	Kenner	6/4/16	6/3/21		Charlotte DP	11/1/17	10/1/20		Chantilly	5/1/15	
	Killeen	9/15/17	9/15/20	GWS	Des Moines	10/1/16	9/1/20		Davenport Put	7/1/16	10/1/20
FON	Aguascalientes	3/1/20	10/1/20		Edmonton TWS	10/1/16	6/4/20	MOF	Hutchinson	5/1/15	8/21
	Hague	10/4/12	10/3/20		Mobile	10/18/17	10/31/20		McMinnville	4/10/15	5/30/21
	Harrisburg	2/28/19	2/27/21		Seattle PSC 1	10/1/16	12/31/20		Washington NASM	4/10/15	
	Louisville KSC	6/18/15	7/2/20		Gatineau	10/7/16	3/31/20		Atlanta FMNH	2/9/18	2/8/21
	Melbourne MV	9/1/15	3/31/20	HCBTD HiddPac	Syracuse MOST	6/1/19	6/1/20		Melbourne MV	1/30/17	1/28/21
	Orlando SC	1/2/20	1/1/21		San Simeon DCI	8/17/96		Meerkats	San Diego NHM	1/1/20	12/31/20
	Portland OMSI ET	3/8/19	3/7/21		Alamogordo	6/28/19	6/30/20		Tallahassee CLC	8/14/18	8/13/20
	Raleigh	2/1/12	10/21		Boston NEA	6/28/19	6/30/20		Victoria DCI	11/24/17	4/15/21
	San Diego RHF	11/14	4/20		Chicago MSI	5/24/19	5/31/20		Hutchinson	11/22/19	11/21/20
	Austin TSHM	1/11/13	3/31/20	HOTB HumpbWha	Lehi	6/28/19	6/30/20		Los Angeles CSC	3/27/20	8/27/20
FOTB	Austin TSHM	10/1/16	10/31/20		New Orleans	5/9/19	5/31/20	MOC	Melbourne MV	3/1/20	12/31/21
	Baton Rouge LASM	9/1/15	6/30/20		Peoria RM	11/1/19	10/31/20		Raleigh	1/10/20	1/10/21
	Columbus COSI	2/5/20	5/22/20		Seattle PSC 2	10/4/19	10/31/20		Seattle PSC 2	11/4/19	11/4/20
	Davenport Put	2/15/13	6/30/20		Glasgow	5/2/14	6/30/20		Victoria DCI	2/20/20	2/20/22
	Edmonton TWS	12/26/13	6/30/20	IAW	Grand Rapids Cel	5/2/19	7/31/20		Davenport Put	6/1/17	5/31/20
	Gatineau	10/5/12	6/30/20		Hampton VASC	9/7/18	12/31/20	MounQues Mummies	Parker	12/1/19	11/30/20
	Harrisburg	2/2/14	6/30/20		Lansing Cel	7/1/18	7/31/20		Sioux Falls	6/1/18	12/31/20
	Hastings	3/17/13	6/30/20		Port of Spain	10/3/19	10/2/20		Kansas City Sci	10/24/19	4/30/20
	Houston MNS	10/4/12	12/31/20		Portage Cel	5/2/19	7/31/20		Memphis Pink	2/9/19	5/22/20
	Lehi	1/19/19	9/19/20	GBR3D	New Orleans	9/15/15	12/31/20		Tallahassee CLC	5/1/19	11/1/20
	London BFI Ode	9/6/13	6/30/20		Berlin CS	6/3/19	6/3/20	ND Niagara	Victoria DCI	8/30/19	9/15/20
	Louisville KSC	9/30/12	6/30/20		Cincinnati MC	2/1/19	2/1/21		Pensacola NAM		11/8/96
	Melbourne MV	3/21/13	9/13/20		Edmonton TWS	10/2/15			Speyer Dome		12/31/20
	Memphis Pink	3/1/14	5/31/20		Grand Rapids Cel	9/1/18	7/31/20		Columbus COSI	11/21/14	12/31/20
	Portland OMSI ET	1/7/14	6/30/20	Hurrican	Hangzhou LCSTM	6/1/19	5/31/20	MOTUW	Copenhagen TBP	6/19/14	6/18/20
	Raleigh	10/19/17	6/30/20		Hyderabad	12/10/18	12/11/20		Gatineau	1/15/16	3/31/20
	Richmond SMV	5/1/13	6/30/20		Indianapolis Imx	8/17/16	10/29/20		Hague	10/1/15	10/20
	Sacramento Imx	8/13/13	6/30/20		Lansing Cel	6/1/19	7/31/20		Kuwait SCK	1/30/14	8/31/20
	Saint Augustine	1/18/13	12/31/20	GBR3D	Lucerne STM	10/6/16	12/31/20		Pittsburgh CSC	11/17/17	12/31/20
	San Diego RHF	10/12/12	6/30/20		Pittsburgh CSC	6/17/16	12/31/20	NPA	Portland OMSI ET	1/23/20	1/22/22
	Victoria DCI	4/5/13	6/30/20		Portage Cel	9/1/18	7/31/20		Raleigh	1/1/15	10/15/21
	Budapest CC	9/19/19	9/19/20		Richmond SMV	3/14/15	12/31/20		San Diego RHF	11/8/13	4/3/20
	Davenport Put	1/29/19	10/20/20		Sacramento Imx	8/19/16	10/29/20		Sioux Falls	2/17/20	2/28/22
	Fort Lauderdale	9/26/19	6/25/20	IAW	Toronto OSC	1/1/20	6/30/20		Tallahassee CLC	3/17	3/20
	Katowice CC	6/18/14	9/30/20		Victoria DCI	6/19/15	12/31/20	MounQues Mummies	Victoria DCI	10/9/15	12/31/20
	Krakow CC	6/18/14	9/30/20		Nassau Fus	10/1/19	9/30/21		Louisville KSC	6/14/19	6/13/20
	Lodz CC	6/18/14	9/30/20		Atlantic City	2/14/20	2/13/21		Baton Rouge LASM	3/1/17	3/31/21
	Lucerne STM	1/1/20	8/31/20		Birmingham AL	3/20/20	3/19/21		Peoria RM	10/16/18	10/31/20
	Melbourne MV	4/11/19	4/10/20	GBR3D	Cancun Cpl	3/20/20	4/3/20	ND Niagara	New Delhi ICC		
	Moscow Kin	10/6/14	5/5/21		Chantilly	2/14/20	2/13/21		Niagara Can DCI	7/1/86	
	Poznan CC	6/18/14	9/30/20		Denver MNS	2/14/20	2/13/21		Niagara NY DCI	5/1/07	
	Prague CC	5/22/14	12/31/21		Guadalajara FT Cpl	3/20/20	4/3/20		Branson	3/18/16	4/12/20
	Warsaw CC	6/18/14	9/30/20		Guadalajara Gal Cpl	3/20/20	4/3/20	NPA	Carnival Horizon	4/1/18	10/6/20
	Wroclaw CC	10/4/17	9/30/20	GBR3D	Harrisburg	2/20/20	2/19/21		Carnival Vista	11/4/16	6/6/20
	Alexandria BA	1/30/19	7/1/20		Houston MNS	2/19/20	2/18/21		Chattanooga TA	2/12/16	4/1/20
	Chattanooga TA	5/24/19	5/23/20		Mexicali	3/20/20	4/3/20		Chicago MSI	3/15/20	4/15/20
	Edmonton TWS	7/1/18	9/14/20		Mexico City FB Cpl	3/20/20	4/3/20		Cincinnati MC	1/1/19	2/1/21
	Houston MNS	3/8/19	3/15/21	GBR3D	Mexico City Per Cpl	3/20/20	4/3/20	NPA	Cleveland	7/1/17	3/31/20
	Milwaukee	3/30/19	6/30/20		Mexico City Uni Cpl	3/20/20	4/3/20		Columbus COSI	3/8/18	9/3/20
	Norwalk MA	12/14/19	9/7/20		Monterrey Gal Cpl	3/20/20	4/3/20		Dearborn THF	3/25/16	7/1/20
	Saint Augustine	8/20/18	8/19/20		Monterrey VO Cpl	3/20/20	4/3/20		Dongguan STM	1/25/17	6/30/20
	Sudbury	3/2/20	3/1/21		Peoria RM	2/28/20	2/27/21		Edmonton TWS	2/12/16	10/22/20
GBRF	Atlanta FMNH	5/3/19	4/30/20		Puebla Cpl	3/20/20	4/3/20	NPA	Fort Worth	2/12/16	6/30/20
	Beijing 3D CSTM	5/2/19	5/5/20		Raleigh	3/20/20			Grand Rapids Cel	10/1/18	7/31/20
	Calgary TS	10/18/19	4/18/20		Regina	2/14/20	2/13/21		Hampton VASC	1/30/20	

Film	Theater	Open	Close	Film	Theater	Open	Close	Film	Theater	Open	Close
OOBP	London BFI Ode	2/12/16	7/31/20	Chicago MSI	Chicago MSI	3/1/20	3/20/22	TTS	Tallahassee CLC	2/1/19	6/30/20
	Moscow Kin	9/17/16	11/30/21		Cincinnati MC	11/15/19	11/15/20		Copenhagen TBP	4/14/19	4/13/20
	Pittsburgh CSC	2/12/16	12/31/20		Cleveland	6/15/19	6/14/20		Hong Kong SM	7/1/19	9/30/21
	Portage Cel	10/1/18	7/31/20		Davenport Put	3/15/19	5/29/21		Houston SCH	1/1/20	12/31/20
	Raleigh	2/27/16	12/31/20		Dearborn THF	3/15/19	3/14/20		Huntsville USSRC	5/1/19	12/31/20
	Richmond SMV	4/10/16	12/31/20		Denver MNS	3/15/19	3/15/20		KSC 1	5/1/19	4/30/20
	Rochester MSC	8/2/19	6/30/20		Edmonton TWS	3/15/19	3/15/20		Los Angeles CSC	1/17/20	1/31/21
	Sacramento Imx	2/19/16	6/30/20		Fort Worth	3/15/19	3/15/20		McMinnville	1/1/19	12/31/20
	Sinsheim	3/4/16	2/20/21		Garza Garcia	2/26/20			Austin Reg	1/1/20	12/31/20
	Vancouver TWS	2/12/16	6/30/20		Gatineau	2/20/20	3/12/21		Chattanooga TA	1/20	2/21
Athens Eug	3/1/19	3/31/20	Hague	6/18/19	6/18/20	Denver MNS	8/22/19	8/21/20			
Portland OMSI ET	4/20/18	4/30/20	Hampton VASC	3/15/19	3/15/20	Edmonton TWS	6/21/19	9/23/20			
Sudbury	3/9/19	6/30/20	Hastings	3/15/19	3/14/20	Hastings	9/13/18	6/30/20			
Tallahassee CLC	6/7/19	12/31/20	Houston MNS	4/26/19	4/25/20	Kuwait SCK	11/1/19	4/6/20			
PlanPowe	Dearborn THF	10/1/19	9/30/20	Huntsville USSRC	Huntsville USSRC	3/1/20	2/28/21	Los Angeles CSC	2/7/20	8/31/20	
	Sinsheim	3/28/19	10/31/20		Indianapolis Imx	3/15/19	3/15/20	Melbourne MV	5/12/18	12/31/20	
	Valencia Spn	1/7/19	6/30/20		Jersey City	6/24/19	6/23/20	Sacramento Imx	9/21/18	5/31/20	
PTJH	Aguascalientes	10/1/19	3/27/20	Los Angeles CSC	3/15/19	3/1/20	Sudbury	12/7/18	6/30/20		
	Charleston CCAS	1/1/19	1/1/21	Louisville KSC	3/15/19	6/13/20	Tallahassee CLC	2/14/20	2/13/21		
RobotsNG	Louisville KSC	7/4/14	7/20/20	Lubbock SS	Lubbock SS	3/10/19		TurtTale	Katowice CC		9/30/20
	Bogota Mal	6/1/19	5/31/20		Melbourne MV	6/1/19	5/31/20		Krakow CC		9/30/20
	Dearborn THF	3/25/16	1/31/21		Memphis Pink	9/14/19	9/13/21		Lodz CC		9/30/20
SeaLion	Hampton VASC	6/20/15	6/18/21	Milwaukee	1/3/20	6/30/21	Poznan CC		9/30/20		
	Hutchinson	5/20/16	6/11/21	Mobile	5/4/19	3/15/20	Warsaw CC		9/30/20		
	San Jose Tech	10/3/15	10/31/20	Montreal SC	5/15/19	5/15/20	Wroclaw CC		9/30/20		
	Boston NEA	2/15/20	9/7/20	Norwalk MA	3/15/19	3/15/20	VanGogh Volcanoes	Gatineau	7/30/18	6/30/20	
	Melbourne MV	3/30/20	3/30/21	Omaha Zoo	5/1/19	4/30/21		Albuquerque NMMNH	10/15/18	10/14/20	
Norwalk MA	3/15/20	12/31/20	Orlando SC	4/1/19	3/30/20	Atlanta FMNH		9/6/19	9/5/20		
SeaMonst SeaRex SFLIS	Sudbury	3/2/20	6/2/21	Peoria RM	3/30/19	3/9/20	Beijing 3D CSTM	1/25/20	1/24/21		
	Victoria DCI	2/20/20	2/20/21	Philadelphia FI	4/13/19	5/15/20	Boston MOS	11/9/18			
	Orlando SC	9/1/19	8/30/21	Pittsburgh CSC	11/23/19	12/31/21	Charlotte DP	3/28/19	3/31/21		
	Phoenix ASC	11/17/19	5/25/20	Portland OMSI ET	3/15/19	3/14/20	Chattanooga TA	6/28/19	3/26/20		
	Beijing 3D CSTM	1/1/19	6/30/20	Quanticco	5/10/19	5/9/21	Chicago MSI	3/19			
SOB3D SOE	Jersey City	11/2/19	11/1/20	Raleigh	3/15/19	3/15/20	Cincinnati MC	12/28/18	12/31/21		
	Philadelphia FI	2/2/19	2/2/21	Regina	3/15/19	3/15/20	Copenhagen TBP	2/15/20	2/14/21		
	Victoria DCI	9/22/17	12/31/20	Richmond SMV	10/1/19	9/30/20	Edmonton TWS	10/12/18	6/30/20		
	Hartberg	12/25/19	12/24/20	Sacramento Imx	3/15/19	3/15/20	Garden City	10/1/19	9/30/20		
	Al Khobar	7/1/19	7/1/20	Saint Louis SC	3/15/19	3/15/20	Hong Kong SM	9/1/19	4/30/20		
SOTU	Beijing 3D CSTM	1/1/20	12/31/20	Saint Paul SMM	10/17/19		Jersey City	12/26/19	12/25/20		
	Melbourne MV	7/1/19	7/1/20	San Diego RHF	3/15/19	3/15/20	Lubbock SS	7/5/19	5/31/20		
	Chantilly	7/12/19	7/12/20	San Jose Tech	3/22/19	3/15/20	Melbourne MV	3/21/19	3/20/20		
	Chicago MSI	8/2/19	5/25/20	Seattle PSC 1	3/15/19	3/15/20	Milwaukee	9/1/19	8/31/21		
	Copenhagen TBP	1/15/20	1/15/21	Seattle PSC 2	3/15/19	3/15/20	New York AMNH	1/6/20	7/5/20		
SpaceNex	Dearborn THF	3/6/20	3/5/21	Shreveport	3/15/19	3/15/20	Orlando SC	2/22/20	2/21/21		
	Sacramento Imx	12/1/19	12/1/21	Stockholm	10/25/19	10/25/20	Philadelphia FI	9/15/19	9/30/20		
	Salt Lake City Clark	8/17/19	8/30/20	Sudbury	3/11/15	3/15/20	Phoenix ASC	2/22/19	6/30/20		
	Valencia Spn	10/1/19	12/31/21	Syracuse MOST	4/15/19	3/15/20	Portland OMSI ET	10/13/18	12/31/20		
	Washington NASM	7/12/19	7/12/20	Tallahassee CLC	3/15/19	3/15/20	Richmond SMV	6/1/19	5/31/20		
SpacJunk	Beijing 3D CSTM	12/1/19	12/1/20	Toronto OSC	4/12/19	5/15/20	Saint Augustine	2/17/20	2/13/21		
	Hutchinson	9/8/17	3/31/20	Vancouver TWS	5/1/19	3/15/20	Saint Louis SC	5/17/19			
	McMinnville	10/1/18	10/31/20	Victoria DCI	5/1/19	3/15/20	Saint Paul SMM	9/19			
	Singapore SC	5/15/18	5/15/21	Harrisburg	2/1/18	3/31/21	San Diego RHF	11/9/18			
	Hutchinson	10/31/14	11/30/20	Memphis Pink	11/17/18	5/22/20	San Jose Tech	8/15/19	8/14/20		
SupDogs	Syracuse MOST	1/1/20	1/31/21	Peoria RM	6/30/18	6/30/20	Shanghai 3D STM	10/19	10/20		
	Albuquerque NMMNH	4/19/19	4/18/20	Washington NASM	3/7/16	12/31/20	Taipei AM	1/1/20	12/31/20		
	Atlantic City	3/15/19	3/15/20	Huntsville USSRC	5/1/19	4/30/20	Toronto OSC	10/11/19	4/30/21		
	Baltimore MSC	7/1/19	5/31/20	Philadelphia FI	1/1/17	1/1/21	Valencia Spn	10/1/19	12/31/20		
	Birmingham AL	3/15/19	3/15/20	Edmonton TWS	1/7/20	1/7/21	Victoria DCI	1/18/19	6/30/20		
TinyGian	Branson	3/15/19	3/15/20	Glasgow	4/1/15	5/20/20	WildAfri	Melbourne MV	1/4/18	2/1/21	
	Calgary TS	3/21/20		Grand Rapids Cel	6/2/18	7/31/20		Richmond SMV	2/1/17		
	Chantilly	3/15/19	3/15/20	Hyderabad	11/15/18	11/30/20		Quanticco	7/31/17		
	Charleston CCAS	7/15/19	6/30/21	Lansing Cel	6/1/18	7/31/20	WTM Yell	Yellowstone	5/1/14	12/31/20	
	Charlotte DP	3/15/19	3/15/20	Moscow Kin	11/1/16	11/30/21					
Chattanooga TA	10/11/19	3/15/20	Portage Cel	6/1/18	7/31/20						

March 2020 by Theater

Theater	Film	Open	Close	Theater	Film	Open	Close	Theater	Film	Open	Close
Aguascalientes	AMJ	4/5/19	3/31/20	Atlantic City	Volcanoes	9/6/19	9/5/20	Berlin CS Birmingham AL	SFLIS	1/1/19	6/30/20
	Cuba	10/25/19	3/25/20		IAW	2/14/20	2/13/21		SOE	1/1/20	12/31/20
	DinoAliv	4/13/19	4/30/20		SupDogs	3/15/19	3/15/20		SpaceNex	12/1/19	12/1/20
	FON	3/1/20	10/1/20	Austin Reg	AMJ	3/1/19	6/1/20		Volcanoes	1/25/20	1/24/21
	Jerusale	10/1/19	3/31/20	Austin TSHM	TurtOdys	1/1/20	12/31/20		HumpbWha	6/3/19	6/3/20
PTJH	10/1/19	3/27/20	A11FSE		9/1/19	8/30/20	A11FSE	5/19/19	5/18/20		
JTS	6/1/19	6/1/20	FOTB		1/11/13	3/31/20	AMJ	1/17/20	5/31/20		
Al Khobar	SOE	7/1/19	7/1/20	FOTB	10/1/16	10/31/20	IAW	3/20/20	3/19/21		
	HiddPac	6/28/19	6/30/20	Baltimore MSC	Jerusale	3/31/21	3/15/19	SupDogs	3/15/19	3/15/20	
Albuquerque NMMNH	DOA	3/1/20	BackWild		3/1/19	6/30/20	RobotsNG	6/1/19	5/31/20		
Alexandria BA	3/1/21	Athens Eug	Atlanta FMNH		Baton Rouge LASM	DreamBig	2/17/17	3/1/21	Bogota Mal	Volcanoes	11/9/18
	ISR			9/1/19		8/31/20	Boston MOS	Volcanoes	11/9/18		
	SupDogs			4/19/19		4/18/20	Boston NEA	HiddPac	6/28/19	6/30/20	
	Volcanoes			10/15/18		10/14/20	Bradford	SeaLion	2/15/20	9/7/20	
	GBR3D			1/30/19		7/1/20	A11FSE	5/17/19	8/31/20		
Atlanta FMNH	OOBP	3/1/19	3/31/20	Beijing 3D CSTM	A11FSE	7/6/19	7/5/20	Branson	DreamBig	1/1/18	8/31/20
	A11FSE	6/1/19	5/30/20		AMJ	5/25/19	5/24/20		A11FSE	6/14/19	6/13/20
	BFTB	1/17/20	2/16/21		FOTB	9/1/15	6/30/20		NPA	3/18/16	4/12/20
	GBRF	5/3/19	4/30/20		Mummies	3/1/17	3/31/21		SupDogs	3/15/19	3/15/20
	MA	2/9/18	2/8/21		BackWild	11/1/19	8/5/20		G3DNW	9/19/19	9/19/20
				GBRF	5/2/19	5/5/20	Budapest CC Calgary TS	ExtrWeat	9/1/17	9/1/20	

Theater	Film	Open	Close	Theater	Film	Open	Close	Theater	Film	Open	Close
Cancun Cpl Carnival Horizon Carnival Vista Chantilly	GBRF	10/18/19	4/18/20	Fort Lauderdale	FOTB	12/26/13	6/30/20	Houston SCH Huntsville USSRC	DreamBig	2/17/17	1/7/21
	SupDogs	3/21/20			GBR3D	7/11/18	9/14/20		FOTB	10/4/12	12/31/20
	IAW	3/20/20	4/3/20		GBRF	9/15/19	9/14/20		GBR3D	3/8/19	3/15/21
	NPA	4/1/18	10/6/20		GlobSoun	10/1/16	6/4/20		GBRF	11/8/19	11/7/20
	NPA	11/4/16	6/6/20		HumpbWha	10/2/15			IAW	2/19/20	2/18/21
	A11FSE	5/17/19	5/17/29		Jerusale	12/26/13	6/30/20		SupDogs	4/26/19	4/25/20
	IAW	2/14/20	2/13/21		NPA	2/12/16	10/22/20		TTS	1/1/20	12/31/20
Charleston CCAS	LITAOA	5/1/15		Fort Worth	SupDogs	3/15/19	3/15/20	Hutchinson	A11FSE	6/1/19	5/30/20
	SOTU	7/12/19	7/12/20		TTA	1/7/20	1/7/21		SupDogs	3/1/20	2/28/21
	SupDogs	3/15/19	3/15/20		TurtOdys	6/21/19	9/23/20		TSAB	5/1/19	4/30/20
Charlotte DP	PTJH	1/1/19	1/1/21		Volcanoes	10/12/18	6/30/20		TTS	5/1/19	12/31/20
	SupDogs	7/15/19	6/30/21		BackWild	6/1/18	4/24/20		A11FSE	5/17/19	5/16/20
	Cuba	9/1/19	9/1/20		BFTB	10/25/19	10/24/20		AncCaves	3/13/20	3/13/21
Chattanooga TA	GlobSoun	11/1/17	10/1/20	Galveston	DOA	2/14/20	2/13/21	Hyderabad	LITAOA	5/1/15	8/21
	SupDogs	3/15/19	3/15/20		DreamBig	2/17/17	6/6/20		MAOOB	11/22/19	11/21/20
	Volcanoes	3/28/19	3/31/21		G3DNW	9/26/19	6/25/20		RobotsNG	5/20/16	6/11/21
	A11FSE	6/14/19	6/13/20		A11FSE	5/17/19	5/16/20		SpaceNex	9/8/17	3/31/20
	BackWild	3/16/18	6/30/20		CRA	6/10/17	9/30/20		SpacJunk	10/31/14	11/30/20
	ConqOTS	11/1/19	11/1/20		DOA	3/6/20	3/6/21		HumpbWha	12/10/18	12/11/20
	ExpChesa	10/1/19	12/31/21	Garden City	DreamBig	2/17/17	6/30/20	Indianapolis Imx	TTA	11/15/18	11/30/20
Chicago MSI	GBR3D	5/24/19	5/23/20		GBRF	7/26/19	7/25/20		A11FSE	7/12/19	7/11/20
	NPA	2/12/16	4/1/20		Jerusale	3/21/16	10/24/22		AmazAdv	9/8/17	5/31/20
	SupDogs	10/11/19	3/15/20		L&C	9/1/03	12/31/23		HumpbWha	8/17/16	10/29/20
	TurtOdys	1/20	2/21		NPA	2/12/16	6/30/20		SupDogs	3/15/19	3/15/20
	Volcanoes	6/28/19	3/26/20		SupDogs	3/15/19	3/15/20		DreamBig	2/17/17	11/15/20
	A11FSE	5/24/19	5/23/20		AncCaves	3/7/20	3/6/21		GBRF	3/15/19	3/14/20
	AncCaves	3/15/20	3/14/21	Garza Garcia Gatineau	Cuba	3/9/19	3/31/20	Kansas City Sci	Jerusale	9/1/18	8/31/20
Cincinnati MC	Cuba	3/1/19	3/31/20		ExpChesa	10/1/19	12/31/20		SFLIS	11/2/19	11/1/20
	GBRF	3/15/20	3/14/21		GBRF	8/30/19	8/18/20		SupDogs	6/24/19	6/23/20
	HiddPac	5/24/19	5/31/20		Jerusale	11/1/19	4/30/20		Volcanoes	12/26/19	12/25/20
	NPA	3/15/20	4/15/20		A11FSE	5/21/19	5/20/20		ExtrWeat	10/15/16	12/31/21
	SOTU	8/2/19	5/25/20		AsterME	5/19/17	6/18/20	Kapurthala	GBRF	7/4/19	7/3/20
	SupDogs	3/1/20	3/20/22		Volcanoes	10/1/19	9/30/20		MOC	10/24/19	4/30/20
	Volcanoes	3/19		Glasgow	SupDogs	2/26/20	6/30/20		AMJ	6/15/18	6/14/20
Cleveland	A11FSE	9/28/19	9/27/20		Arabia	4/24/18	6/30/20		Everest	6/15/18	6/14/20
	HumpbWha	2/1/19	2/1/21		BackWild	6/1/18	3/31/20	Katowice CC	AfricAdv	6/15/18	9/30/20
	NPA	1/1/19	2/1/21		D-Day	9/1/15	12/31/20		G3DNW	6/18/14	9/30/20
	SupDogs	11/15/19	11/15/20		Dolphins	7/9/18	6/30/20		TurtTale		9/30/20
	Volcanoes	12/28/18	12/31/21		Everest	7/30/18	6/30/20		FlyMons	6/4/16	6/3/21
	A11FSE	5/18/19	5/17/20		FOTB	10/5/12	6/30/20		FlyMons	9/15/17	9/15/20
	AmazAdv	1/9/18	6/30/20	Grand Canyon DCI Grand Rapids Cel	GBRF	7/2/19	7/1/20	Kolkata SC Krakow CC	AsterME	1/1/19	12/31/20
Columbus COSI	AMJ	3/23/18	3/31/20		GWS	10/7/16	3/31/20		AfricAdv		9/30/20
	BFTB	2/8/20	1/31/21		MOTUW	1/15/16	3/31/20		G3DNW	6/18/14	9/30/20
	DreamBig	3/17/17	3/31/20		SupDogs	2/20/20	3/12/21		TurtTale		9/30/20
	GBRF	11/1/19	11/1/20		VanGogh	7/30/18	6/30/20	KSC 1 Kuwait SCK	TTS	5/1/19	4/30/20
	NPA	7/1/17	3/31/20		AmazAdv	4/12/19	4/14/20		AmazAdv	6/14/18	3/31/20
	SupDogs	6/15/19	6/14/20		HidUniv	5/2/14	6/30/20		DreamBig	6/25/17	8/31/20
Copenhagen TBP	Bugs	9/15/14	6/30/20		TTA	4/1/15	5/20/20		JTM	7/26/19	8/31/20
	FOTB	2/5/20	5/22/20	Guadalajara FT Cpl Guadalajara Gal Cpl Guangzhou GSC Guayaquil	GC	11/1/99	12/20		MOTUW	1/30/14	8/31/20
	GBRF	2/29/20	6/10/20		DreamBig	7/15/17	7/31/20		TurtOdys	11/1/19	4/6/20
	MOTUW	11/21/14	12/31/20		GCA	9/1/18	7/31/20	Lansing Cel	DreamBig	6/30/17	7/31/20
	NPA	3/8/18	9/3/20		HidUniv	5/2/19	7/31/20		GCA	5/1/19	7/31/20
	A11FSE	6/12/19	6/11/20		HumpbWha	9/1/18	7/31/20		HidUniv	7/1/18	7/31/20
	MOTUW	6/19/14	6/18/20		NPA	10/1/18	7/31/20		HumpbWha	6/1/19	7/31/20
	SOTU	1/15/20	1/15/21	Hague	TTA	6/2/18	7/31/20	Lehi	NPA	10/1/18	7/31/20
Corpus Christi Lex Davenport Put	TTS	4/14/19	4/13/20		IAW	3/20/20	4/3/20		TTA	6/1/18	7/31/20
	Volcanoes	2/15/20	2/14/21		IAW	3/20/20	4/3/20		AMMM	9/6/19	9/5/20
	ACGOTS	6/17/16			BackWild	5/1/19	5/1/20		BackWild	5/24/18	5/24/20
	A11FSE	7/13/19	7/12/20		AMJ	4/16/19	4/15/20		DOA	2/28/20	2/27/21
	BFTB	11/1/19	10/31/20		BackWild	4/3/19	3/31/20		FOTB	1/19/19	9/19/20
	Bugs	10/1/12	4/28/20		Everest	9/1/19		Lodz CC	HiddPac	6/28/19	6/30/20
	DreamBig	2/24/17	3/31/20	Hampton VASC	FON	10/4/12	10/3/20		AfricAdv		9/30/20
Dayton Dearborn THF	ExtrWeat	10/15/16	10/14/20		GBRF	10/15/19	10/15/20		ExtrWeat	10/15/19	10/31/20
	FlyMons	3/27/14	6/1/20		Jerusale	3/31/14	6/30/20		G3DNW	6/18/14	9/30/20
	FOTB	2/15/13	6/30/20		MOTUW	10/1/15	10/20		TurtTale		9/30/20
	G3DNW	1/29/19	10/20/20		SupDogs	6/18/19	6/18/20	London BFI Ode	AmazAdv	3/29/19	3/31/20
	L&C		4/26/20		A11FSE	6/15/19	6/14/20		FOTB	9/6/13	6/30/20
	LITAOA	7/1/16	10/1/20		DreamBig	2/17/17	12/31/20		Jerusale	2/26/20	2/28/21
	Meerkats	6/1/17	5/31/20	Hangzhou LCSTM	HidUniv	9/7/18	12/31/20		NPA	2/12/16	7/31/20
Denver MNS	SupDogs	3/15/19	5/29/21		NPA	1/30/20	12/31/20	London SM Los Angeles CSC	A11FSE	5/17/19	5/16/20
	A11FSE	5/25/19	5/24/20		RobotsNG	6/20/15	6/18/21		BackWild	9/28/19	4/1/20
	A11FSE	6/17/19	6/16/20		SupDogs	3/15/19	3/15/20		DOA	2/14/20	2/13/21
	DreamBig	2/17/17	7/1/20		AMMM	1/1/20	12/31/20		MAOOB	3/27/20	8/27/20
	ISR	7/1/19	6/30/20		HumpbWha	6/1/19	5/31/20		SupDogs	3/15/19	3/1/20
	NPA	3/25/16	7/1/20	Harrisburg	DreamBig	2/18/17	3/11/20		TTS	1/17/20	1/31/21
	PlanPowe	10/1/19	9/30/20		ExpChesa	3/20/19	12/31/21	Louisville KSC	TurtOdys	2/7/20	8/31/20
Des Moines Detroit MSC Dongguan STM Edmonton TWS	RobotsNG	3/25/16	1/31/21		FON	2/28/19	2/27/21		BackWild	3/23/18	6/30/20
	SOTU	3/6/20	3/5/21		FOTB	2/2/14	6/30/20		DOA	3/27/20	3/27/21
	SupDogs	3/15/19	3/14/20		GBRF	2/15/19	4/1/20		DreamBig	2/17/17	6/30/20
	A11FSE	5/17/19	5/16/20		IAW	2/20/20	2/19/21		ExtrWeat	10/14/19	10/14/21
	AmazAdv	1/16/20	6/30/20	Hartberg	NPA	7/1/16	7/2/20		FON	6/18/15	7/2/20
	DOA	2/14/20	2/13/21		TinyGian	2/1/18	3/31/21		FOTB	9/30/12	6/30/20
	IAW	2/14/20	2/13/21		AMJ	4/6/19	4/15/20	Lubbock SS	Jerusale	1/20/14	7/20/20
Detroit MSC Dongguan STM Edmonton TWS	SupDogs	3/15/19	3/15/20		NPA	6/1/19	6/1/21		L&C	7/2/18	7/2/20
	TurtOdys	8/22/19	8/21/20	Hastings	SOB3D	12/25/19	12/24/20		MounQues	6/14/19	6/13/20
	GlobSoun	10/1/16	9/1/20		BFTB	10/25/19	10/24/20		PTJH	7/4/14	7/20/20
	BackWild	3/1/20	2/28/21		FOTB	3/17/13	6/30/20		SupDogs	3/15/19	6/13/20
	NPA	1/25/17	6/30/20		ISR	9/1/19	12/31/20		BFTB	12/6/19	12/2/20
	AmazAdv	1/19/18	6/30/20	Hong Kong SM	SupDogs	3/15/19	3/14/20		DOA	2/14/20	2/13/21
	BackWild	11/8/19	11/7/20		TurtOdys	9/13/18	6/30/20	Lucerne STM	GBRF	10/18/19	10/17/20
	BFTB	1/17/20	1/16/21		TTS	7/1/19	9/30/21		SupDogs	3/10/19	
	Bugs	6/30/18	6/30/20		Volcanoes	9/1/19	4/30/20		Volcanoes	7/5/19	5/31/20
	DreamBig	3/25/17	2/25/21	Houston MNS	BFTB	1/6/20	1/5/21		A11FSE	5/24/19	4/1/20
	ExtrWeat	6/2/17	6/1/20		DOA	2/14/20	2/13/21		AfricAdv	1/1/20	8/31/20

Theater	Film	Open	Close	Theater	Film	Open	Close	Theater	Film	Open	Close		
McMinnville	Cuba	10/25/19	10/31/20	Philadelphia FI	SupDogs	3/30/19	3/9/20	Saint Louis SC	GBRF	2/15/19	4/1/20		
	G3DNW	1/1/20	8/31/20		TinyGian	6/30/18	6/30/20		L&C	6/14/20	6/14/20		
	HumpbWha	10/6/16	12/31/20		A11FSE	5/17/19	5/17/20		Volcanoes	2/17/20	2/13/21		
	Jerusale	9/27/13	11/30/20		DreamBig	3/1/18	3/31/20		A11FSE	2/14/20	2/13/21		
	LITAOA	4/10/15	5/30/21		SFLIS	2/2/19	2/2/21		BackWild	1/26/20	1/25/21		
Melbourne MV	SpaceNex	10/1/18	10/31/20	Phoenix ASC	SupDogs	4/13/19	5/15/20	Saint Paul SMM	ExtrWeat	1/13/17	12/11/21		
	TTS	1/1/19	12/31/20		TSAB	1/1/17	1/1/21		GBRF	11/29/19	11/28/20		
	A11FSE	10/1/19	6/30/20		Volcanoes	9/15/19	9/30/20		L&C	3/1/20	2/28/21		
	AMMM	7/11/16			A11FSE	5/17/19	5/16/20		SupDogs	3/15/19	3/15/20		
	ExtrWeat	4/1/19	3/31/20		AGWN	3/13/20	3/13/21		Volcanoes	5/17/19			
Memphis Pink	FON	9/1/15	3/31/20	Pittsburgh CSC	DOA	2/14/20	2/13/21	Salt Lake City Clark	A11FSE	5/17/19	5/11/20		
	FOTB	3/21/13	9/13/20		GBRF	10/12/19	10/11/20		Cuba	3/1/19	3/1/20		
	G3DNW	4/11/19	4/10/20		SeaRex	11/17/19	5/25/20		DreamBig	2/3/20	2/2/21		
	GBRF	1/1/20	12/31/20		Volcanoes	2/22/19	6/30/20		SupDogs	10/17/19			
	MA	1/30/17	1/28/21		A11FSE	5/19/19	12/31/20		Volcanoes	9/19			
	MAOOB	3/1/20	12/31/21	Port of Spain	AmazAdve	11/17/17	12/31/20	San Diego NHM	A11FSE	6/22/19	6/21/20		
	SeaLion	3/30/20	3/30/21		AMJ	1/25/19	12/31/20		BFTB	11/16/19	5/22/20		
	SOE	7/1/19	7/1/20		BackWild	8/31/18	12/31/20		DOA	2/14/20	2/13/21		
	SupDogs	6/1/19	5/31/20		Cuba	11/1/19	10/31/20		ExtrWeat	10/24/16	11/18/21		
	TurtOdys	5/12/18	12/31/20		DOA	2/21/20	5/31/21		SOTU	8/17/19	8/30/20		
	Mexicali	Volcanoes	3/21/19	3/20/20	Portage Cel	DreamBig	11/17/17	12/31/20	San Diego RHF	DOA	2/15/20	2/14/21	
		WildAfri	1/4/18	2/1/21		ExtrWeat	11/17/17	12/31/20		MA	1/1/20	12/31/20	
		A11FSE	5/25/19	5/24/21		HumpbWha	6/17/16	12/31/20		Bugs	7/1/14	6/30/20	
		Cuba	9/19/19	9/17/21		MOTUW	11/17/17	12/31/20		FON	11/14	4/20	
		DOA	2/20/20	2/19/21		NPA	2/12/16	12/31/20		FOTB	10/12/12	6/30/20	
Mexico City FB Cpl		ExtrWeat	3/24/17	8/31/21	Portland OMSI ET	SupDogs	11/23/19	12/31/21	San Jose Tech	GBRF	2/28/20	2/27/21	
		FOTB	3/1/14	5/31/20		DreamBig	5/3/19	5/2/20		Jerusale	11/20/15	4/3/20	
		MOC	2/9/19	5/22/20		HidUniv	10/3/19	10/2/20		L&C	4/3/20	4/3/20	
		SupDogs	9/14/19	9/13/21		DreamBig	6/30/17	7/31/20		MOTUW	11/8/13	4/3/20	
		TinyGian	11/17/18	5/22/20		GCA	9/1/18	7/31/20		SupDogs	3/15/19	3/15/20	
		Monterrey Gal Cpl	IAW	3/20/20	4/3/20	Poznan CC	HidUniv	5/2/19	7/31/20	Seattle PSC 1	Volcanoes	11/9/18	
			IAW	3/20/20	4/3/20		HumpbWha	9/1/18	7/31/20		A11FSE	5/17/19	5/16/20
			DOA	3/23/20	9/22/20		NPA	10/1/18	7/31/20		BFTB	10/25/19	10/24/20
			IAW	3/20/20	4/3/20		TTA	6/1/18	7/31/20		D-Day	5/15/19	6/30/20
			IAW	3/20/20	4/3/20		A11FSE	5/17/19	5/16/20		ExtrWeat	10/15/16	10/30/21
	Monterrey Pap		DreamBig	7/10/17	6/30/21	Prague CC	AGWN	3/1/19	11/30/20	Seattle PSC 2	GBRF	2/11/20	2/11/21
			GBR3D	3/30/19	6/30/20		BackWild	9/7/18	6/30/20		RobotsNG	10/3/15	10/31/20
			GBRF	9/1/19	9/27/20		DOA	3/1/20	3/1/21		SupDogs	3/22/19	3/15/20
			SupDogs	1/3/20	6/30/21		DSC	6/13/19	6/14/21		Volcanoes	8/15/19	8/14/20
			Volcanoes	9/1/19	8/31/21		FON	3/8/19	3/7/21		HCBTD	8/17/96	
Monterrey VO Cpl			DOA	2/22/20	5/31/20	Puebla Cpl	FOTB	1/7/14	6/30/20	Shreveport	GlobSoun	10/1/16	12/31/20
			GlobSoun	10/18/17	10/31/20		L&C	7/21/15	10/11/21		SupDogs	3/15/19	3/15/20
			SupDogs	5/4/19	3/15/20		MOTUW	1/23/20	1/22/22		A11FSE	5/31/19	7/18/20
			IAW	3/20/20	4/3/20		OOPB	4/20/18	4/30/20		AmazAdve	11/10/17	
			AMJ	3/15/18	4/15/20		SupDogs	3/15/19	3/14/20		BFTB	12/20/19	12/19/21
		Montreal SC	DreamBig	2/2/18	4/15/20	Raleigh	Volcanoes	10/13/18	12/31/20	Singapore DC	Cuba	6/14/19	6/30/20
			IAW	3/20/20	4/3/20		AfricAdv		9/30/20		GBRF	5/3/19	5/2/20
			GBRF	10/1/19	9/30/20		G3DNW	6/18/14	9/30/20		HiddPac	10/4/19	10/31/20
			SupDogs	5/15/19	5/15/20		TurtTale		9/30/20		MAOOB	11/4/19	11/4/20
			AMJ	4/15/18	4/16/20		G3DNW	5/22/14	12/31/21		SupDogs	3/15/19	3/15/20
	Moscow Kin		DreamBig	9/10/17	6/2/20	Regina	IAW	3/20/20	4/3/20	Shanghai 3D STM	AMJ	7/24/19	7/23/20
			G3DNW	10/6/14	5/5/21		SupDogs	5/10/19	5/9/21		BackWild	11/1/19	1/24/21
			NPA	9/17/16	11/30/21		WTM	7/31/17			Volcanoes	10/19	10/20
			TTA	11/1/16	11/30/21		A11FSE	7/5/19	7/4/20		A11FSE	7/4/19	7/3/20
			AMJ	10/30/19	10/30/21		BackWild	6/4/18	6/30/20		SupDogs	3/15/19	3/15/20
Nassau Fus			DreamBig	10/30/19	10/30/21	Richmond SMV	ExtrWeat	10/17/16	10/15/21	Speyer Dome	Cuba	9/17/19	3/17/20
			Hurrican	10/1/19	9/30/21		FON	2/1/12	10/21		GBRF	3/16/19	4/1/20
			ND				FOTB	10/19/17	6/30/20		SpaceNex	5/15/18	5/15/21
			DOA	3/6/20	5/30/20		GBRF	3/1/19	5/19/20		A11FSE	5/17/19	5/16/20
			HiddPac	5/9/19	5/31/20		IAW	3/20/20			IAW	3/12/20	3/11/21
		New Delhi ICC	HOTB	9/15/15	12/31/20	Saint Augustine	L&C	1/1/15	7/2/20	Tallahassee CLC	NPA	3/4/16	2/20/21
			Volcanoes	1/6/20	7/5/20		MAOOB	1/10/20	1/10/21		PlanPowe	3/28/19	10/31/20
			Niagara	7/1/86			MOTUW	11/1/15	10/15/21		AmazAdve	12/2/17	5/31/20
			Niagara	5/1/07			NPA	2/27/16	12/31/20		AMJ	2/1/19	5/30/20
			A11FSE	5/17/19	5/16/20		SupDogs	3/15/19	3/15/20		BackWild	2/1/19	5/31/20
	New Orleans		AmazAdve	5/17/19	5/16/20	Sacramento Imx	DreamBig	3/1/20	3/31/20	Taichung NMNS	DreamBig	6/2/17	5/30/20
			BackWild	3/24/18	6/30/20		GBRF	2/15/19	10/10/20		ExtrWeat	2/1/17	3/31/20
			GBR3D	12/14/19	9/7/20		IAW	2/14/20	2/13/21		IAW	2/17/20	2/16/21
			SeaLion	3/15/20	12/31/20		SupDogs	3/15/19	3/15/20		L&C	10/25/16	11/18/21
			SupDogs	3/15/19	3/15/20		AmazAdve	5/1/18	6/30/20		Meerkats	6/1/18	12/31/20
New York AMNH			BackWild	11/1/18	6/30/20	Saint Paul SMM	DreamBig	2/18/17	6/30/20	Taipei AM	MOTUW	2/17/20	2/28/22
			SupDogs	5/1/19	4/30/21		FOTB	5/1/13	6/30/20		A11FSE	5/17/19	12/31/20
			A11FSE	7/1/19	6/30/20		GCA	6/1/16	6/30/20		Dolphins	6/1/00	12/31/20
			AGWN	9/1/19	8/31/20		HumpbWha	3/14/15	12/31/20		Jerusale	12/12/13	12/12/20
			AmazAdve	2/24/18	6/30/20		NPA	4/10/16	12/31/20		JTTSP	5/25/17	12/31/20
		Niagara Can DCI	BackWild	11/1/18	6/30/20	Saint Paul SMM	SupDogs	10/1/19	9/30/20	Tallahassee CLC	MOF		12/31/20
			BFTB	11/8/19	11/7/20		Volcanoes	6/1/19	5/31/20		SupDogs	10/25/19	10/25/20
			FON	1/2/20	1/1/21		WildAfri	2/1/17			BackWild	9/4/18	6/30/20
			GBRF	2/23/19	4/1/20		NPA	8/2/19	6/30/20		GBR3D	3/2/20	3/1/21
			SeaMonst	9/1/19	8/30/21		A11FSE	7/12/19	7/1/20		GBRF	2/15/19	6/30/20
	Norwalk MA		SupDogs	4/1/19	3/30/20	Saint Paul SMM	AlWC	5/1/15	6/10/20	Tallahassee CLC	OOPB	3/9/19	6/30/20
			Volcanoes	2/22/20	2/21/21		AmazAdve	9/8/17	6/30/20		SeaLion	3/2/20	6/2/21
			A11FSE	7/20/19	7/21/20		ExtrWeat	2/24/17	10/14/20		SupDogs	3/11/15	3/15/20
			Meerkats	12/1/19	11/30/20		FOTB	8/13/13	6/30/20		TurtOdys	12/7/18	6/30/20
			A11FSE	5/17/19	5/16/20		HumpbWha	8/19/16	10/29/20		GWS	6/1/19	6/1/20
Osaka Sci			ACGOTS	5/26/17	6/30/20	Saint Paul SMM	Jerusale	9/15/14	10/23/20	Tallahassee CLC	SpacJunk	1/1/20	1/31/21
			MOF	11/8/96			NPA	2/19/16	6/30/20		SupDogs	4/15/19	3/15/20
			A11FSE	5/25/19	5/24/20		SOTU	12/1/19	12/1/21		BackWild	7/1/19	6/30/20
			AmazAdve	6/20/18	6/30/20		SupDogs	3/15/19	3/15/20		Volcanoes	1/1/20	12/31/20
			AMJ	2/16/18	3/1/21		TurtOdys	9/21/18	5/31/20		A11FSE	7/12/19	7/11/20
		Pensacola NAM	DreamBig	2/18/17	6/1/20	Saint Paul SMM	BackWild	8/17/19	8/16/20	Tallahassee CLC	AmazAdve	4/28/17	6/30/20
			ExtrWeat	10/15/16	10/21/21		DreamBig	2/17/17	6/30/20		BackWild	10/18/18	6/30/20
			HiddPac	11/1/19	10/31/20		ExtrWeat	10/15/16	10/30/20		Cuba	1/18/19	6/30/20
			IAW	2/28/20	2/27/21		FOTB	1/18/13	12/31/20		ExtrWeat	5/19/17	5/1/20
			Mummies	10/16/18	10/31/20		GBR3D	8/20/18	8/19/20		JTS	6/22/18	6/21/21

Theater	Film	Open	Close	Theater	Film	Open	Close	Theater	Film	Open	Close
Thessaloniki SCTM	MA	8/14/18	8/13/20	Vancouver TWS	SOTU	10/1/19	12/31/21	Virginia Beach AMSC	MOTUW	10/9/15	12/31/20
	MOC	5/1/19	11/1/20		Volcanoes	10/1/19	12/31/20		SeaLion	2/20/20	2/20/21
	MOTUW	3/17	3/20		A11FSE	11/23/19	11/22/20		SFLIS	9/22/17	12/31/20
	OOBP	6/7/19	12/31/20		AmazAdve	12/22/17	6/30/20		SupDogs	5/1/19	3/15/20
	SupDogs	3/15/19	3/15/20		DreamBig	3/4/17	6/30/20		Volcanoes	1/18/19	6/30/20
	TTA	2/1/19	6/30/20		GBRF	2/15/19	4/1/20		ExpChesa	9/3/19	
	TurtOdys	2/14/20	2/13/21		IAW	2/29/20	2/28/21				
	DreamBig	10/28/17	10/11/20		NPA	2/12/16	6/30/20				
	JTS	12/14/18	12/31/20		SupDogs	5/1/19	3/15/20		Warsaw CC		9/30/20
					A11FSE	9/20/19	9/19/20		G3DNW	6/18/14	9/30/20
Tijuana	A11FSE	12/2/19	12/1/20	Victoria DCI	ACGOTS	5/3/19	5/31/20	Washington NASM	TurtTale		9/30/20
	AGWN	4/12/19	4/11/20		AmazAdve	4/14/17	6/30/20		A11FSE	5/17/19	5/17/29
Toluca Cpl	BFTB	3/15/20	3/14/21		AMMM	4/16/18	4/15/21		ACGOTS	5/26/17	5/25/20
	IAW	3/20/20	4/3/20		BackWild	1/18/19	6/30/20		IAW	2/14/20	2/13/21
Toronto OP	ACGOTS	6/1/18	6/1/20		BFTB	11/22/19	11/21/20		JTS	3/6/15	
	BFTB	2/15/20	2/14/21		ConqOTS	8/18/17	4/15/21	Wroclaw CC	LITAOA	4/10/15	
Toronto OSC	A11FSE	5/17/19	11/16/20		Cuba	3/29/19	3/31/20		SOTU	7/12/19	7/12/20
	AmazAdve	10/6/17	6/30/20		DreamBig	3/17/17	6/30/20		ToFly	3/7/16	12/31/20
	GBRF	2/15/19	6/30/20		FOTB	4/5/13	6/30/20		AfricAdv		9/30/20
	HumpbWha	1/1/20	6/30/20		GBRF	2/15/19	4/1/20		ExtrWeat	10/15/19	10/31/20
Toulouse CDE	SupDogs	4/12/19	5/15/20	Yellowstone	HumpbWha	6/19/15	12/31/20		G3DNW	10/4/17	9/30/20
	Volcanoes	10/11/19	4/30/21		MA	11/24/17	4/15/21		TurtTale		9/30/20
Valencia Spn	A11FSE	6/1/19	4/1/20		MAOOB	2/20/22	2/20/22		A11FSE	5/17/19	5/16/20
	A11FSE	7/1/19	6/30/20		MOC	8/30/19	9/15/20		GBRF	5/17/19	5/16/20
	PlanPowe	1/7/19	6/30/20						Yell	5/1/14	12/31/20

Key to Film Abbreviations

Film	Title	Year	Dist	Film	Title	Year	Dist
A11FSE	Apollo 11: First Steps Edition	2019	MFF	Mummies	Mummies: Secrets of the Pharaohs	2007	GSF
ACGOTS	Aircraft Carrier: Guardian of the Seas	2016	3D	ND	Neelkanth Darshan	2005	unk
AfricAdv	African Adventure 3D	2007	3D	Niagara	Niagara: Miracles, Myths, and Magic	1987	DCI
AGWN	Australia's Great Wild North	2018	K2	NPA	National Parks Adventure	2016	3D
AIWC	Adventures in Wild California	2000	MFF	OOBP	Oceans: Our Blue Planet	2018	3D
AmazAdve	Amazon Adventure	2017	3D	PlanPowe	Planet Power	2018	3D
AMJ	America's Musical Journey	2018	3D	PTJH	Pandas: The Journey Home	2014	3D
AMMM	Amazing Mighty Micro Monsters 3D	2016	3D	RobotsNG	Robots	2015	3D
AncCaves	Ancient Caves	2020	3D	SeaLion	Sea Lions: Life by a Whisker	2020	3D
Arabia	Arabia	2010	3D	SeaMonst	Sea Monsters: A Prehistoric Adventure	2007	CPD
AsterME	Asteroid: Mission Extreme	2016	3D	SeaRex	Sea Rex: Journey to a Prehistoric World	2010	3D
BackWild	Backyard Wilderness	2018	3D	SFLIS	Search for Life In Space, The	2016	3D
BFTB	Back From the Brink	2019	3D	SOB3D	Son of Bigfoot 3D, The	2018	3D
Bugs	Bugs!	2003	3D	SOE	Story of Earth, The	2018	3D
ConqOTS	Conquest of the Skies	2017	3D	SOTU	Secrets of the Universe	2019	3D
CRA	Coral Reef Adventure	2003	MFF	SpaceNex	Space Next 3D	2015	3D
Cuba	Cuba	2019	3D	SpacJunk	Space Junk	2012	3D
D-Day	D-Day: Normandy 1944	2014	3D	SupDogs	Superpower Dogs	2019	3D
DinoAliv	Dinosaurs Alive	2007	3D	TinyGian	Tiny Giants 3D	2014	3D
DOA	Dinosaurs of Antarctica	2020	3D	ToFly	To Fly!	1976	MFF
Dolphins	Dolphins	2000	MFF	TSAB	To Space and Back	2017	CPD
DreamBig	Dream Big: Engineering Our World	2017	3D	TTA	To the Arctic	2012	3D
DSC	Deepsea Challenge 3D	2015	3D	TTS	Touch the Stars	2019	3D
Everest	Everest	1998	MFF	TurtOdys	Turtle Odyssey	2018	3D
ExpChesa	Expedition Chesapeake	2019	B&D	TurtTale	Turtle's Tale: Escape from Paradise, A	2013	3D
ExtrWeat	Extreme Weather	2016	3D	VanGogh	Van Gogh: Brush with Genius	2009	MFF
FlyMons	Flying Monsters 3D	2011	3D	Volcanoes	Volcanoes: The Fires of Creation	2018	3D
FON	Forces of Nature	2004	CPD	WildAfri	Wild Africa 3D	2015	3D
FOTB	Flight of the Butterflies	2012	3D	WTM	We, The Marines	2017	MFF
G3DNW	Galapagos 3D: Nature's Wonderland	2014	3D	Yell	Yellowstone	1994	GSF
GBR3D	Great Barrier Reef	2018	3D				
GBRF	Great Bear Rainforest	2019	3D				
GC	Grand Canyon: The Hidden Secrets	1985	DCI				
GCA	Grand Canyon Adventure: River at Risk	2008	3D				
GlobSoun	Global Soundscapes:	2016	3D				
GWS	Great White Shark	2013	3D				
HCBTD	Hearst Castle: Building the Dream	1996	DCI				
HiddPac	Hidden Pacific	2019	3D				
HidUniv	Hidden Universe	2013	3D				
HOTB	Hurricane on the Bayou	2006	MFF				
HumpbWha	Humpback Whales	2015	3D				
Hurrican	Hurricane	2017	3D				
IAW	Into America's Wild	2020	3D				
ISR	In Saturn's Rings	2018	B&D				
Jerusale	Jerusalem	2013	3D				
JTM	Journey to Mecca	2009	CPD				
JTS	Journey to Space	2015	3D				
JTTSP	Journey to the South Pacific	2013	3D				
L&C	Lewis & Clark: Great Journey West	2002	CPD				
LITAOA	Living in the Age of Airplanes	2015	CPD				
MA	Museum Alive 3D	2016	3D				
MAOOB	Mountain Adventure: Out of Bounds	2019	3D				
Meerkats	Meerkats 3D	2012	3D				
MOC	Mysteries of China	2016	3D				
MOF	Magic of Flight, The	1997	MFF				
MOTUW	Mysteries of the Unseen World	2013	3D				
MounQues	Mountain Quest	2018	K2				

March 2020 Bookings Count

#	Film	#	Film	#	Film	#	Film
61	SupDogs	8	GBR3D	4	OOBP	2	WildAfri
54	A11FSE	8	SOTU	4	SFLIS	1	AIWC
34	GBRF	8	TTA	4	SpaceNex	1	Arabia
33	DreamBig	7	AfricAdv	3	AncCaves	1	CRA
32	Volcanoes	7	HiddPac	3	Everest	1	DinoAliv
27	NPA	7	TTS	3	FlyMons	1	DSC
26	BackWild	6	HidUniv	3	ISR	1	GC
24	IAW	6	MAOOB	3	Meerkats	1	HCBTD
22	FOTB	6	TurtTale	3	PlanPowe	1	HOTB
20	ExtrWeat	5	ACGOTS	3	PTJH	1	Hurrican
19	AmazAdve	5	ExpChesa	3	SOE	1	JTM
18	DOA	5	GlobSoun	3	TinyGian	1	JTTSP
15	AMJ	5	LITAOA	2	AsterME	1	MounQues
15	BFTB	5	MA	2	ConqOTS	1	ND
15	HumpbWha	5	RobotsNG	2	D-Day	1	SeaMonst
13	G3DNW	5	SeaLion	2	Dolphins	1	SeaRex
13	Jerusale	4	AGWN	2	GWS	1	SOB3D
12	Cuba	4	AMMM	2	MOF	1	ToFly
12	MOTUW	4	Bugs	2	Mummies	1	VanGogh
11	TurtOdys	4	GCA	2	Niagara	1	WTM
9	FON	4	JTS	2	SpacJunk	1	Yell
9	L&C	4	MOC	2	TSAB		

Directory of Organizations Mentioned in this Issue of LF Examiner

Distributors' abbreviations are listed in **bold**.

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Minneapolis, MN 55402
afterglowstudios.com/

Archipelago Films
2 Jackson Street
Pleasantville, NY 10570
Tel: 914-862-4202
www.archipelagofilms.com/

BBC Studios Natural History Unit
Television Centre, 101 Wood Lane
London, W127FA UK
www.bbcearth.com/

BIG & Digital **B&D**
8565 S. Eastern Avenue, Suite 158
Las Vegas, NV 89123
Tel: 502-212-1559
www.biganddigital.com/

Canadian Museum of History
100 Laurier Street
Gatineau, QC K1A 0M8 CANADA
Tel: 819-776-7021
Fax: 819-776-7122
www.historymuseum.ca/visit/cineplus/

Christie Digital Systems USA, Inc.
10550 Camden Drive
Cypress, CA 90630
Tel: 714-236-8610
Fax: 714-229-7128
www.christiedigital.com/

Cosmic Picture
64 Oxford Gardens
London, W10 5UN UK
Tel: +44-20-7792 1699
www.cosmicpicture.com/

Cosmic Picture Distribution **CPD**
108 Village Square, Suite 304
Somers, NY 10589
www.cosmicpicture.com/

D3D Cinema
990 Grove St., Suite 200
Evanston, IL 60201
Tel: 847-475-9140
Fax: 847-475-9145
www.d3dcinema.com/

December Media
Level 1, 462 City Rd
South Melbourne, Victoria 3205 AUSTRALIA
Tel: +61-3-9699 8911
Fax: +61-3-9699-8611
www.decembermedia.com.au/

December Media Distribution
476 Bourke Street
Surry Hills, NSW 2010 AUSTRALIA
www.decembermedia.com.au/

Definition Films
Building 125 Trackdown
115 Lang Road Entertainment Quarter
Sydney, NSW 2021 AUSTRALIA
www.definitionfilms.com.au/

Destination Cinema, Inc. **DCI**
3544 Lincoln Avenue, Suite C
Ogden, UT 84401
Tel: 801-392-2001
Fax: 801-392-6703
destinationcinema.com/

Dorsey Pictures
10397 W. Centennial Road
Littleton, CO 80127
Tel: 720-891-4835
www.dorseypictures.tv/

Elevate Entertainment, Inc.
Dallas, TX

Evans & Sutherland
770 Komas Drive
Salt Lake City, UT 84108-1229
Tel: 801-588-1000
Fax: 801-588-4500
www.es.com/

Foxfire Interactive Corporation **FIG**
500 East Washington St, Suite 30
North Attleboro, MA 02760
Tel: 508-699-6650
Fax: 508-699-6651
www.foxfireinteractive.com/

Giant Screen Cinema Association
624 Holly Springs Road Suite 243
Holly Springs, NC 27540
Tel: 919-346-1123
www.giantscreencinema.com/

Giant Screen Films **GSF**
1421 Sherman Ave, Unit 101
Evanston, IL 60201
Tel: 847-475-9140
Fax: 847-475-9145
gsfilms.com/

Gulf Coast Exploreum Science Center
65 Government Street
PO Box 1968
Mobile, AL 36602
Tel: 251-208-6883
Fax: 251-208-6889
www.exploreum.com/

Howard Hall Productions
2171 La Amatista Road
Del Mar, CA 92014
Tel: 858-259-8989
Fax: 858-792-1467
www.howardhall.com/

Huaxia Film Distribution Co
901 Rm 7 Bldg 13 Courtyard
Jia Huayuan Rd Haidian Dis
Beijing, 100088 CHINA
Tel: +86-10-8225-7979

Imax Corporation **IMAX**
2525 Speakman Drive
Mississauga, ON L5K 1B1 CANADA
Tel: 905-403-6500
Fax: 905-403-6450
www.imax.com/

Imax Corporation
12582 West Millennium Drive
Los Angeles, CA 90094
Tel: 310-255-5500
Fax: 310-255-5501
www.imax.com/

IMERSA
www.imersa.org/

Industrial Light and Magic
PO Box 2459
San Rafael, CA 94912
Tel: 415-258-2000
www.ilm.com/

K2 Studios **K2**
880 Apollo Street, Suite 239
El Segundo, CA 90245
Tel: 310-524-9100
Fax: 310-524-1540
www.k2communications.com/

Linköping University
Linköping, SE-581 83 Sweden
liu.se/en/

MacGillivray Freeman Films, Inc. **MFF**
PO Box 205
Laguna Beach, CA 92652
Tel: 949-494-1055
Fax: 949-494-2079
macgillivrayfreeman.com/

Milbrand Cinema
24780 Highland Way
Los Gatos, CA 92033
milbrandcinema.com/

Mirage 3D
Lekstraat 156
The Hague, 2515VZ NETHERLANDS
Tel: +31-7-345-7500
mirage3d.nl/

Mirasol Capital, LLC
Dallas, TX
mirasolcapital.com/

Museum Victoria
GPO Box 666
Melbourne, VIC 3001 AUSTRALIA
Tel: +61-3-9651-6731
Fax: +61-3-9651-6321
www.mov.vic.gov.au/

National Naval Aviation Museum
1750 Radford Ave, Suite B
NAS Pensacola, FL 32508
Tel: 800-327-5002
Fax: 850-457-3032
www.navalaviationmuseum.org/

nWave Pictures
4747 W Avenue L2
Quartz Hill, CA 93536
Tel: 818-565-1010
Fax: 818-565-1161
www.nwave.com/

Directory, cont'd

Oceanic Research Group
PO Box 94
North Reading, MA 01864
Tel: 978-664-9091
www.oceanicresearch.org/

Ontario Science Centre
770 Don Mills Rd.
Toronto, ON M3C 1T3 CANADA
Tel: 416-429-4100
Fax: 416-696-3135
www.ontariosciencecentre.ca/

Prospero Productions
21 Blinco Street
Fremantle, WA 6160 AUSTRALIA
Tel: +61-8-933-6006
Fax: +61-8-933-6007
www.prospero.com.au/

Racimec Informatica Brasileira SA
Rua Lauro Muller 116
Rio de Janeiro, 22290 BRAZIL
Tel: +55 215417965

Saint Thomas Productions
Village d'Entreprises Saint Henri
Rue Anne Gacon - Bat 301-302
Marseille, 13016 FRANCE
Tel: +33 4 95 068 068
www.saint-thomas.net/

Sean Casey Productions
Los Angeles, CA

Sinking Ship Entertainment
1179 King Street West, Suite 302
Toronto, ON M6K 3C5 CANADA
www.sinkingship.ca/

SK Films, Inc. **SKF**
Pinewood Toronto Studios
225 Commissioners Street, Suite 303
Toronto, ON M4M 0A1 CANADA
Tel: 416-367-0440

Fax: 647-837-3350
skfilms.ca/

Sky-Skan, Inc.
51 Lake St.
Nashua, NH 03060
Tel: 603-880-8500
Fax: 603-882-6522
www.skyskan.com/

Sony Pictures Entertainment
10202 West Washington Blvd
Culver City, CA 90232-3195
Tel: 310-244-4000

Stephen Low Company
795 Carson Ave, Suite 6
Dorval, QC H9S 1L7 CANADA
Tel: 514-633-6036
Fax: 514-633-6035
www.stephenlow.com/

Telus World of Science Edmonton
11211-142nd Street
Edmonton, AB T5M 4A1 CANADA
Tel: 780-452-9100
Fax: 780-455-5882
telusworldofscienceedmonton.ca/

Terra Mater Factual Studios GmbH
Wambachergasse 2
Vienna, Vienna 1130 Austria
www.terramater.at/

Vision Research, Inc.
100 Dey Rd.
Wayne, NJ 07470
Tel: 973-696-450
www.phantomhighspeed.com/

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Director, Theaters & Attractions Museum of Science, Boston, MA

The Museum of Science, Boston, seeks a Director of Theaters and Attractions. Ideally starting in March 2020, the Director will oversee the Museum's digital IMAX giant screen dome theater (the Mugar Omni Theater), the 4-D Theater, Thrill Ride 360 (a venue consisting of two MaxFlight motion simulators), and is responsible for current and future revenue generating ancillary amenities and attractions. This position blends content selection and scheduling, industry advocacy, venue oversight, technical systems expertise, and business analysis and strategy in the direction of key museum venues serving 400,000 to 500,000 visitors per year and generating \$2 million+ in annual revenue.

The Director of Theaters and Attractions will join the Museum in an exciting role at a pivotal time. Open since 1987 as New England's first IMAX screen, the Museum' Mugar Omni Theater is New England's only 180 degree giant dome theater. In early 2020, the Omni Theater is undergoing renovation including conversion of the original 70mm projection system to a state-of-the-art IMAX® 4K digital projection system. In addition, the Museum has commissioned Cosmic Picture to produce a New England themed giant screen feature film slated for release in 2021.

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THE BIZ

Imax reports \$47M FY2019 profit

On Feb. 19, **Imax Corporation** reported its financial results for the quarter and fiscal year ending Dec. 31, 2019. For the quarter, the company posted a profit (attributable to common shareholders) of \$18.2 million (\$0.29 per diluted share) on revenues of \$124.3 million, compared to a profit of \$1.7 million (\$0.03 per share) on revenue of \$109 million in the fourth quarter of 2018. For the fiscal year, Imax reported a profit (attributable to common shareholders) of \$46.9 million (\$0.76 per diluted share) on record revenues of \$395.7 million, compared to a profit of \$22.8 million (\$0.36 per share) on revenues of \$374.4 million in fiscal 2018.

For the twelve months ending Dec. 31, the company signed agreements for 104 new theaters and 39 upgrades, a total of 143 in 2019, compared to 122 new theaters and 112 upgrades, a total of 234 in 2018. It installed 129 new theaters and 57 upgrades, for a total of 186 in 2019, compared to 149 new screens and 43 upgrades, a total of 192, in 2018.

As of Dec. 31, 2019, the world inventory of IMAX theaters (excluding IMAX systems owned by private individuals) stood at 1,624, of which 1,529 were in multiplexes, 14 were in “destination theaters” (non-multiplex commercial venues), and 81 were in institutions.

At the end of 2019, Imax’s backlog of theater systems stood at 531, compared to 564 at the end of 2018. The company installed nearly 100 laser projection systems in 2019.

In a conference call with analysts, Imax CEO **Richard Gelfond** said that the outbreak of coronavirus in China has closed virtually all theaters in the country, and scuttled a slate of films that had been planned for the Chinese New Year Festival (Jan. 25–Feb. 4). However, he characterized it as a “rare, out-of-the-ordinary event that will ultimately pass,” adding that he expected business to “rebound... once conditions in China normalize.”

According to Gelfond, 2019 marked the first year that the company’s domestic business was eclipsed by that of Greater China and rest of the world. He also reported that the company has expanded its estimate of the “total addressable market” for IMAX theaters to 3,300 potential sites for IMAX theaters, including the nearly 2,200 already built and in backlog. The company plans to focus its growth on Japan, the Middle East, Southeast Asia, and South America.

GSCA, IMERSA joining IPS 2020

The **Giant Screen Cinema Association** and **IMERSA** will each host one-day events in conjunction with the Interna-

age for fulldome shows, a second keynote speaker, whose identity is being kept under wraps, will talk about the “language of immersive storytelling.”

This is the first time since its founding in 2009 that IMERSA has not held a meeting early in the year, and the first time it has teamed up with IPS.

The IMERSA Mini Summit requires a separate registration fee; GSCA’s Big Screen Day is included with admission to IPS 2020.

The IPS conference will feature a trade show and dozens of concurrent sessions on issues relating to planetarium and fulldome operations and show production.

Keynote speakers include astronomy writer and photographer **Alan Dyer**, and **Sarah Gallagher**, science advisor to the Canadian Space Agency.

For more information, visit giantscreencinema.com, imersa.org, and ips-planetarium.org.



Telus World of Science, Edmonton, AB, will host IPS 2020.

tional **Planetarium Society’s** 2020 conference in Edmonton, AB, Canada, June 21–25. The meeting is being hosted by **Telus World of Science Edmonton**, which has both a 274-seat flat-screen IMAX theater with a GT laser system and a 75-foot (23-meter) **Sky-Skan** Definiti fulldome theater.

The GSCA will host a Big Screen Day on Thursday, June 25, with screenings of eight new GS films.

IMERSA, the association of Immersive Media, Entertainment, Research, Science, and Art, will hold a “Mini Summit” on Saturday, June 20. The theme of IMERSA Day is “The Many Facets of Immersive Storytelling,” and the meeting will feature a keynote on “Creating Audience Impact” by independent producer **Michael Daut**. After a panel discussion on presenting art on domes and a session on using the latest digital cameras to capture live-action foot-

age for fulldome shows, a second keynote speaker, whose identity is being kept under wraps, will talk about the “language of immersive storytelling.”

This is the first time since its founding in 2009 that IMERSA has not held a meeting early in the year, and the first time it has teamed up with IPS.

B&D dists Whale Super Highway

BIG & Digital is distributing the documentary **Whale Super Highway** to full-

(see **BIZ** on page 9)

Elevate to acquire E&S

Elevate Entertainment, Inc., a Dallas, TX-based private equity firm, has entered into an agreement to acquire fulldome and planetarium-system provider **Evans & Sutherland Computer**

Corp. for \$1.19 per share, a transaction valued at about \$14.5 million. The boards of the two companies unanimously approved the transaction, which is expected to be completed within the first quarter of 2020. The deal includes E&S’s wholly-owned subsidiary, **Spitz, Inc.**

Elevate Entertainment is an affiliate of **Mirasol Capital, LLC**, which is “the private equity and venture arm of the Winn Family Office with a primary focus on real estate and technology-related ventures.” CEO **Stephen T. Winn** is the founder of RealPage, a provider of “software and data analytics to the real estate industry,” according to the company’s website.